

PRESERVING THE SOCIAL FABRIC OF COMMUNITY:  
A MIXED-METHODS ANALYSIS OF THE NEWLY-DESIGNATED  
HISTORIC DISTRICTS IN BROOKLYN, NEW YORK (2007-2015)

A Dissertation  
Presented to the Faculty of the Graduate School  
of Cornell University  
In Partial Fulfillment of the Requirements for the Degree of  
Doctor of Philosophy in City & Regional Planning

by

Emily Alice Goldman

January 2017

© Emily Alice Goldman, 2017



This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 United States License  
<https://creativecommons.org/licenses/by-nc-nd/4.0/>

PRESERVING THE SOCIAL FABRIC OF COMMUNITY:  
A MIXED-METHODS ANALYSIS OF THE NEWLY-DESIGNATED  
HISTORIC DISTRICTS IN BROOKLYN, NEW YORK (2007-2015)

Emily Alice Goldman, Ph.D.  
Cornell University 2017

This dissertation examines the wave of seventeen historic district designations that took place from 2007 through 2015 in Brooklyn, New York, following a ten-year period that lacked any. Its core question is can historic districting in the 21st century help communities preserve their social fabric, at the same time as their architectural, and if so, how? First, through a literature review, the Introduction establishes that the field of Historic Preservation has become increasingly socially conscious over the last few decades, developing goals, backed by theory, to continuously expand its base of constituents. Then, the dissertation proceeds in three methodologically defined chapters. Testing whether the social goals of Preservation are reflected in the recent wave of designations, the first chapter develops and applies a Census data methodology to the historic districts of Brooklyn, creating two subsets based on year of designation, and finds that the newly-designated districts exhibit characteristics that strongly confirm increasing social inclusivity and diversity. Next, eight months of fieldwork research in a newly-designated area reveal how the processes embodied in the Landmarks Law, though nominally pertinent to the built environment alone, are being channeled to protect the social fabric of community. This chapter ultimately argues, therefore, that historic districting in 21st century Brooklyn can be understood as a method of “self-preservation.” The third chapter, using developments in Open data and Civic technology, analyzes three other related trends. It reveals that changes in rent-stabilized housing,

property turnover, and the growing presence of LLCs in real estate are complicating whether the Preservation community can realize its goals.

This dissertation aims to make substantive and methodological contributions to a deeper understanding of 21st century Preservation. The new wave of designations is characterized by greater inclusivity and diversity, and communities are channeling Preservation processes and regulations toward protecting their social fabric, but larger forces compete. In exploring these dimensions of 21st century Preservation, a refined approach to Census data analysis, community-engaged research, and Open data and Civic tech methods are applied and discussed. Ideally, both the information and the methods prove germane and useful for future research.



## BIOGRAPHICAL SKETCH

Emily Alice Goldman is the fourth of four daughters of parents Suzy Jahss Bernstein and James Alan Goldman. She grew up in Ardsley, New York and went to Harvard College where she majored in History.

After college, she pursued a Master of Arts at Cornell in Historic Preservation Planning, and wrote her thesis on Sunnyside Gardens, the Clarence Stein-designed community in Queens, New York City, then in the process of becoming designated a historic district by the Landmarks Preservation Commission (LPC). Shortly after graduating, she began work at the LPC where she worked for four years before returning to Cornell to pursue a Ph.D. in City & Regional Planning in 2011.

In memory of my mom, Suzy Bernstein Goldman (1945-2009)

## ACKNOWLEDGEMENTS

First, I would like to acknowledge all the professors I met during my Ph.D. at Cornell who so kindly provided support and guidance throughout this entire journey. These professors were very generous in the way they listened, advised, and took time to think about my questions and ideas. I don't think I can name them all, but, in addition to my committee members, some are Kieran Donaghy, John Forester, Michael Manville, Mildred Warner, Susan Christopherson, Dick Booth, Jeff Chusid, Stephan Schmidt, Yuri Mansury, Steve DeGloria, and Bernd Blossey.

Among the professors at Cornell, I was so lucky to have met Angela Gonzales and Richard Swedberg during the second semester of my first year, who have been wonderful members of my Committee and mentors, guiding me along gently but ardently, and providing all the inspiration I needed to keep going. Thank you, Angela and Richard, you enriched this experience for me in many ways.

Michael Tomlan, whom I have known since 2005, is an extraordinary Committee Chair, taking on that role in full glory! I thank him for all his advice, wisdom, and understanding of my work and other life events over the past ten years. Having supervised me through an M.A. and Ph.D., endeavors which require giving much of yourself, Michael understands me in a deep way, and he is now a life-long friend and mentor that I feel very grateful to have and know. Michael's editing of this dissertation was also, like many of

the other things he does, meticulous and remarkable, and I hope the final document does justice to his careful comments and suggestions.

I could not have written this dissertation without the knowledge I gained by working with the Preservation community in Crown Heights, who let me learn from them for six months. They taught me more than I could have possibly expected, and it will be an honor to take that knowledge with me into future professional experiences. I hope my dissertation can convey something of their incredible work. I could not have analyzed all the data in this dissertation without the help and support of the GIS community in Ithaca and in New York City, and the Civic Tech folks I met during fieldwork who continue to inspire me today, including Noel Hidalgo, Lauren Rennee, and many others.

I would also like to thank the Ph.D. students at Cornell, including two very close friends, Courtney Knapp and Shoshana Goldstein. And thank you to all those I met outside of CRP for providing other perspectives on life and making me smile! Finally, I would like to express my deepest love and gratitude to my family and friends, near and far. Dad, Katy, Annie, Jeannie, Jane, Georgia, Kathleen, Andria, Anna, Jason, and Jeremy, I thank you all for your untiring support, your faith in me, and your patience. I love you all so much and so lucky to know you. Jer, thank you again for your help with the technical work in this dissertation. I learned so much from you.

## TABLE OF CONTENTS:

BIOGRAPHICAL SKETCH	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
LIST OF IMAGES	vii
LIST OF GRAPHS	ix
LIST OF TABLES	x
INTRODUCTION	
Fields of research	
Literature Review	
Contributions	
Conclusion	
CHAPTER 1: CENSUS DATA ANALYSIS OF BROOKLYN'S HISTORIC DISTRICTS	14
Introduction	
A History Census data Analysis in Historic District Research	
Methodological Consideration: Alignment	
Other Methodological Considerations	
Data & Method	
Results	
Conclusion	

CHAPTER 2: THE USES OF PRESERVATION: CROWN HEIGHTS NORTH	50
Introduction	
Background	
Crown Heights North Association	
Fieldwork	
1. Designations	
2. Affordability	
3. Community Input & Control	
Conclusion	
CHAPTER 3: INTER-RELATED REALITIES VIA OPEN DATA AND CIVIC TECH	85
Introduction	
Open data	
Trapped data & Rent-Stabilization	
FOIL & Property Sales	
“grepl” & Limited Liability Companies	
Conclusion	
CONCLUSION	128
APPENDICES	136
BIBLIOGRAPHY	151

## LIST OF IMAGES

Image 1: Map of Brooklyn.....	18
Image 2: Street signs in the Crown Heights North historic district.....	25
Image 3: Map of Crown Heights West with Prospect Heights and Crown Heights North historic districts.....	26
Image 4: Examples of non-contextual buildings constructed in Crown Heights West before rezoning.....	27
Image 5: Inclusionary zoning area in Crown Heights West Rezoning.....	28
Image 6: Brooklyn's historic district polygons overlaid on Census tracts.....	30
Image 7: Map from Schuler, Kent, and Monroe's study, 1992.....	33
Image 8: Map from Allison's study, 2005.....	34
Image 9: Map from McCabe & Ellen's study, 2016.....	36
Image 10: Map to illustrate method applied in this dissertation, 2016.....	37
Image 11: Map to illustrate method applied in this dissertation, 2016.....	41
Image 12: Map to illustrate method applied in this dissertation, 2016.....	42
Image 13: Map of Central Brooklyn Neighborhoods.....	50
Image 14: Map of Brooklyn's Community Boards.....	57
Image 15: CHNA Board member's sketch of CHN Historic District Phase I.....	66
Image 16: Map of Crown Heights West and adjacent historic districts.....	67
Image 17: Landmarks Conservancy Historic Properties Fund completed projects as of 2014.....	70
Image 18: Flyer for CHNA's annual Town Hall meeting, April 16, 2014.....	72
Image 19: 718 Nostrand Avenue empty lot.....	75

Image 20: Front facade of 863 St. Marks Place.....	77
Image 21: 863 St. Marks Place “Tax Photo” from ca. 1939.....	78
Image 22: Map of building footprints in rear extension study for 863 St. Marks Place public hearing.....	79
Image 23: Rear of 863 St. Marks, with partial views of adjacent buildings' rear extensions.....	80
Image 24: A section of PLUTO data opened in QGIS.....	88
Image 25: Map of Brooklyn’s NTAs, historic districts, and NTAs that contain any portion of a historic district.....	89
Image 26: Map of parcels that are within the historic districts of Clinton Hill, Fort Greene, and Brooklyn Academy of Music.....	90
Image 27: North Bushwick historic buildings.....	94
Image 28: RGB data in original form, a 316 page PDF document.....	97
Image 29: Screenshot of Tabula to convert PDF to spreadsheet form.....	98
Image 30: Map of PLUTO with rent-stabilized parcels highlighted.....	99
Image 31: Interactive web map of rent-stabilized parcels, using CartoDB.....	100
Image 32: Chris Henrick’s app, “Am I Rent-Stabilized?” .....	101
Image 33: Heatmap of buildings in Brooklyn that have retained their rent-stabilized status between 2002 and 2014.....	103
Image 34: Sample tax bill scraped for rent-stabilized units data, from 97 Brooklyn Avenue, a rent-stabilized building in Crown Heights North.....	106



## LIST OF GRAPHS

Graph 1: Cumulative Historic District Designations.....	15
Graph 2: Historic District Designations per Year.....	16
Graph 3: % Non white, and % Non white occupied housing units, 2000.....	44
Graph 4: % Non white, and % Non white occupied housing units, 2010.....	47
Graph 5: Rent-stabilized buildings data.....	102
Graph 6: Rent-stabilized buildings in CHN.....	104
Graph 7: Change in rent-stabilized units in six geographical groupings.....	107
Graph 8: 6 Density of sales in the borough, the 15 NTAs, and the HDs.....	111
Graph 9: 7 Density of sales in the early and new districts, borough, and 15 NTAs.....	112
Graph 10: Density of sales in the borough, the HDs, and CHN historic districts.....	114
Graph 11: Density of sales in the individual CHN historic districts.....	115
Graph 12: 10 Change in presence of LLCs between 2002 and 2015.....	120
Graph 13: 11 Change in LLCs between 2002 and 2015; Historic districts subsets.....	121
Graph 14: LLC presence in 2015; Historic district v. NTA.....	123

## LIST OF TABLES

Table 1: Number of blocks aligning with each geographical group.....	43
Table 2: Block level data, 2000 Decennial Census.....	43
Table 3: Block level data, 2010 Decennial Census.....	46
Table 4: Demographic data of Crown Heights North .....	55
Table 5: Parcels, Units, Residential Units, and % Residential Units.....	91
Table 6: Administrative boundaries: Community boards, and Police precincts.....	91
Table 7: Size of largest lots.....	92
Table 8: Greatest number of floors.....	92
Table 9: Greatest number of units.....	92
Table 10: New construction since 2000.....	93
Table 11: Tallest new buildings' number of floors.....	93
Table 12: Individual landmarks in Brooklyn .....	94
Table 13: Change in rent-stabilized buildings over time.....	102
Table 14: Change in rent-stabilized buildings in CHN.....	104
Table 15: Percent loss of stabilized units.....	108
Table 16: Number and percent LLCs, 2002 and 2015.....	120
Table 17: Percent change in LLCs over time; Historic district subsets.....	122
Table 18: LLC presence in 2015; Historic district v. NTA.....	123
Table 19: 2000 and 2010 Decennial Census block level data, together.....	130

## INTRODUCTION

Drawing from eight months of fieldwork research in Central Brooklyn, New York, and from extensive analyses of Census data and New York City Open data, this dissertation examines the wave of seventeen new historic district designations that took place in the borough of Brooklyn from 2007 through 2015, after a ten-year period that lacked any. The overall premise is that this wave of designations reflects and embodies distinct qualities that are relevant to many urban scholars and policy-makers: essentially, amid increasing development pressures in Brooklyn, communities are devising ways to channel the processes and regulations of historic districting to protect the *social* fabric of community, conceiving it as a method of “self-preservation.” The three main chapters of the dissertation step back to examine this thesis through different angles, with their own data and methods.

After establishing through a literature review that the current ideals of Historic Preservation efforts include *social* diversity and inclusivity, the first chapter tests if these ideals appear to characterize the newly-designated historic districts, using Census data analysis in Geographic Information Systems (GIS). The second chapter explores if and how on-the-ground Preservation work would attempt to sustain these ideals, through research with the organization that catalyzed the wave of new designations in Central Brooklyn. The third chapter uses Open data and Civic technology to investigate to what extent three inter-related trends occurring across the entire landscape of Brooklyn may place limits on the community-oriented ideals of the Historic Preservation movement.

Fields of research and research niche:

This dissertation is grounded in the field of Historic Preservation, viewing it as a special arena of City & Regional Planning (Birch & Roby 1984; Minner 2016). Both fields matter to the wider world, in the broadest sense, because they shape and color the environments we live in, and affect our lives every day. Though policy-making in these fields often focuses on the built environment, citizens feel the effects deeply.

The creation of historic districts is a longstanding planning tool to protect historic portions of cities and towns and regulate changes in their built environment. The first historic district in this country was established in 1931, in Charleston, South Carolina, followed by the Vieux Carre in New Orleans in 1937, and San Antonio, Texas in 1939 (Tomlan 2015). After World War II and Urban Renewal, many cities established Preservation laws and Landmark Commissions to ensure the protection of historic areas and encourage restoration of the buildings. The 21st century exhibits another pronounced rise in the creation and regulation of historic districts in many cities across the country. For example, Austin, Chicago, Los Angeles, Philadelphia, and Brooklyn all have at least doubled their total number of historic districts just since 2000 (See Appendix 1 for this information in thirteen major American cities).

Literature review:

This dissertation contributes to the literature about Historic Preservation's progress over time incorporating a wider range of constituents, and becoming a more diverse and inclusive practice. As a field, Historic Preservation has had to overcome a legacy of being exclusive in its early years, and many scholars and practitioners innovated through the 20th century in order to do so, through a combination of theoretical and applied work, which reinforce each other (e.g. Tainter and Lucas, 1983; King 1985; DuBrow, 2003; Hayden, 1995; Tomlan, 1998; Kaufman, 2009; Lee, 1987, Lee, 2003). The opportunity now exists to evaluate if some of these gains in Preservation thinking are reflected in 21st century practice, and if so, to carefully examine the implications for the field, which this dissertation aims to do with emerging research methods. The brief literature review that follows documents Historic Preservation's expansion of scope, and shows how diversity and inclusivity incrementally became ideals for the field.

#### Expanding the What:

Reflected in the sub-title of a new important text on Historic Preservation in the United States, Caring for our Expanding Legacy, by Michael Tomlan, Preservation's reach has been continually widening since its beginnings over two-hundred years ago. Keeping apace with major cultural and intellectual shifts in American history, it has widened both in terms of what it preserves, and for whom, often occurring naturally together. The earliest Historic Preservation efforts in this country focused on objects and artifacts; private collections were made accessible to the public through museums, such as the Philadelphia Museum of 1786 (Tomlan, 2015). By the mid-1800s, however, the

prevailing object of organized Preservation efforts had become entire buildings, often connected to the lives of early American presidents (Barthel, 1989; Tomlan, 2015; Minner, 2016). For this reason, Preservation in the U.S. is generally said to have patriotic roots (Barthel, 1996; Birch and Roby, 1984; Hosmer, 1965; Ryberg-Webster & Kinahan, 2014; Minner, 2016). Over the next several decades, the scope of Preservation continued to grow, encompassing natural landscapes, such as Yosemite and Yellowstone National Park in the 1860s and 1870s, Colonial Williamsburg, an entire early industrial town, which was restored incrementally between 1884 and 1934, and historic districts in cities, such as Charleston, New Orleans, and San Antonio, designated in the 1930s (Tomlan, 2015).

Reflecting an expanding understanding of what could and should be preserved, when the National Historic Preservation Act (NHPA) was passed in 1966, the term historic property was defined as “districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture” (NHPA, 1966). These represented the major categories for listing on the National Register of Historic Places, the nation’s official list of historic properties. Though local Preservation laws may be slightly different, they are generally modeled upon this national law.

Demonstrating Preservation’s expansion further, to account for properties that still did not fall neatly into any of the above categories, cemeteries, maritime sites, and cultural landscapes were also added in time, as well as “traditional cultural properties” (TCPs) in 1992, places of importance to American indigenous communities that are often integral to

their cultural practices (NHPA, as amended through 2000). Furthermore, though not yet appearing on the National Register, “everyday” places have also been recognized as among some of the most important to preserve (Kaufman, 2009), as well as sites of “intangible heritage,” the latter of which does comprise a category on the World Heritage List, overseen the United Nations Educational, Scientific, and Cultural Organization (UNESCO). Thus, from its early focus on objects and artifacts, to its attention today to maintaining cultural practices and “intangible” heritage, the scope of Preservation has widened greatly over the last 230 years.

#### Expanding the Whom:

The addition of TCPs as a category on the National Register of Historic Places in 1992 demonstrates Preservation’s lateral expansion as well, that is, its concern with, not only a growing range of objects, but also of peoples, cultures, and values. The intellectual roots for this expansion, however, were laid three decades prior, in the field of Archaeology (Tomlan 2015).

In the 1950s and 1960s, as developments in technology permitted more exhaustive fieldwork, archaeologists became increasingly aware of what they still were not exploring, which led to concern that the practice was putting forward a limited narrative about the past (Tomlan, 2015). In 1983, two archaeologists, Joseph Tainter and George Lucas, in their article, “The Epistemology of Historical Significance,” drew the connection to Preservation more explicitly. This article problematizes a central

component of most Preservation practices--the act of assigning historical significance to sites. In arguing that significance is not inherent in objects or places, but lives in the minds of people, they challenge the theoretical and practical feasibility of operationalizing the concept (Leone and Potter, 1991; Tainter and Lucas; 1983, King, 1985). One constructive suggestion they make, however, is to consult widely with as many potential stakeholders as possible, to approach a more complete understanding of a site.

This line of thinking in Archaeology provides a solid theoretical basis for widening the range of Preservation's constituents too. Historical significance is not fixed or objective; it depends on whom is asked. Also, in a diverse, democratic country like the U.S., many cultural groups have their own historic resources to preserve. Along with the inclusion of TCPs on the National Register in 1992, which demonstrates this understanding, a trend to incorporate a diverse range of peoples, cultures, and values in Preservation proliferated throughout the 1990s and 2000s, and continues to resonate in the field today.

In the opening article to the 2016 special edition of the *Journal of the American Planning Association* on Historic Preservation, Jennifer Minner draws attention to Preservation's expansion in the social sphere, noting that the 1990s represent a significant decade. During this era, preservationists sought to honor, more consistently than in previous times, the histories and contributions of various cultural groups including "indigenous, immigrant, racial, ethnic, class, gender identity and sexual orientation" (Minner, 2016). As a few examples, the African American Heritage Preservation Foundation was



established in 1994. Dolores Hayden is well-known for her work in the 1990s collaborating with ethnic communities in Los Angeles to demarcate places of significance to them through signage and public art (Hayden, 1995). Gail DuBrow addressed the relationship between Historic Preservation and women's contributions to American society in articles such as "Feminist and Multicultural Perspectives on Preservation Planning," and her book of 2003, Restoring Women's History through Historic Preservation.

In 1997, Michael Tomlan organized a conference and edited a book of essays of the same title: A Critical Look at Historical Significance: Preservation Of What? For Whom?, capturing this momentum in Preservation. The book includes practical and theoretical contributions, such as Howard Green's essay, "The Social Construction of Historical Significance." Tomlan's own theoretical point of view is to filter what is seen in the built environment through the eyes of the communities and individuals who make their home or living there, rather than only through architectural expertise. This perspective epitomizes Preservation's growth and maturation.

On a related note, preservationists during this era also became increasingly vocal about attracting a diverse range of individuals to become involved in the profession (Minner, 2016). Antoinette Lee is particularly known for her work on this topic, including an essay called "Discovering Old Cultures in the New World: The Role of Ethnicity" in the 1987 compilation, The American Mosaic: Preserving a Nation's Heritage. Diversity

within the profession itself would help reinforce the developments just discussed (Lee, 2004).

Concerted efforts to increase diversity and inclusivity in Preservation continue to embody a prominent direction in the field today (Buckley & Graves, 2016; Avrami 2016). In 2014, for example, Stephanie Meeks from the National Trust stated,

“At the National Trust, we are working to....build a more inclusive movement, one that listens to people from all backgrounds and works with them to save the places that matter to all our communities” (Meeks, 2014)

Similarly, in 2014, Jon Jarvis from National Park Service announced, referring specifically to the LGBTQ community:

“One of my priorities as we look toward the Service’s centennial year in 2016 has been to ensure that the stories we tell represent the diversity of the American experience” (Jarvis, 2014).

Building on these accomplishments, some scholars have recently begun to conceive new ways for Preservation to advance social equity goals, not only to become more equitable itself, but also to help generate more equity in urban environments (Minner, 2016; Buckley & Graves, 2016; Howell, 2008). These represent exciting new directions for the field.

In sum, for several decades now, preservationists have worked to include a range of constituents as diverse as the American populace, and they have developed a strong theoretical basis for this expansion. What they have not yet done, though, is try to evaluate, with some system, whether these developments in Preservation thinking are being implemented in practice. That is what this dissertation aims to do. Beyond monitoring outcomes, this is important because if it has, then out of this success will emerge new opportunities and challenges for Preservation. Since seventeen new historic districts were created in Brooklyn, New York in the 21st century (between 2007 and 2015), these districts provide researchers with a sample to test if and how the practice of Preservation appears to be reflecting its theoretical strides concerning diversity and inclusivity, and if it does, to consider what the implications are going forward.

One other point should be made, which differentiates this study from other work in the same arena. As described, some of the existing studies of diversity and inclusivity in Preservation focus on efforts to recognize the places and the histories of various cultural groups—whether it be indigenous communities, women, or working class (King, 2005; DuBrow, 1998; Tomlan, 1998). Interest in the cultural group, in a sense, drives the Preservation effort. The designations in Central Brooklyn, however, are less about honoring any particular social group, and are more about extending official Preservation regulation to areas that are architecturally-comparable to established historic districts, but had not yet been recognized.

While the historical and present social characteristics of historic districts are well documented in Landmarks Preservation Commission (LPC) designation reports, attention to who inhabits these areas essentially stops when the regulation begins. The LPC generally applies the same rules to all historic districts, and maintains its focus on the built environment. Questions of social diversity and inclusivity, however, are still germane to an analysis of the agency's work over time. After applying a method to test whether Preservation's modern ideals are showing up in the recent wave of designations in 21st century Brooklyn, the dissertation then proceeds to discuss the opportunities in and limits to this synchronicity.

#### Contributions of this Dissertation:

This dissertation applies three distinct empirical research methods to a study of the people and communities in the newly-designated districts in Brooklyn, New York. In addition to augmenting our understanding of this historic succession of designations, the broader intention is to help formulate research methods for other studies that, broadly speaking, focus on the people involved in and affected by Preservation.

Chapter 1 draws from several existing studies that use Census data analysis in the context of historic districts but differs from them in a few ways (e.g. Gale, 1991; Schuler, Kent, & Monroe, 1992; Lees, 2002; Allison, 2005; Glaeser, 2010). First, the driving question is different. The previous studies examine the relationship between historic preservation processes and population shifts in cities, and in so doing conduct cross-sectional analyses

of designated versus non-designated areas, comparing their rates of change in certain demographic and socio-economic variables. This study leverages a similar method to analyze a shift in Preservation itself. It posits that the new wave of designation may represent a paradigm where Preservation is oriented toward protecting the social fabric of community (“self-preservation”). Due to the nature of this question, two categories of historic districts are compared: the early-designated ones (designated before 2007) and the newly-designated ones (designated between 2007 and 2015). This study also makes a case for using Census Block level data rather than the Tract or Block Group, explicating the gains in accuracy arising from this choice.

Chapter 2 documents the work of the Crown Heights North Association, the organization that initiated the new wave of designations in Brooklyn. The movement for designation in Crown Heights North was an ambitious, community-driven effort launched mainly by long-term residents of the area who created an extensive network of political and operational support. From June through December of 2014, attending meetings of this highly motivated group of individuals and participating in discussions over email (87 email threads) provided, by way of method, a perspective on their aims for designation, and the strategies they found useful. Drawing examples from fieldwork, this section is organized around three themes: designations, affordability, and community input and control.

Research with local Preservation groups has not been common in Planning or Preservation scholarship (Philip Kasinitz, sociologist, conducted a study of the work of

the Boerum Hill Association in 1988), perhaps because their goals were seen as self-evident, or just about architecture. But the goals of Preservation groups are more complex now. Preservation processes and regulations are serving purposes beyond design control, which should be understood, as the case study demonstrates.

Chapter 3 attempts to balance the ideals and goals of Preservation discussed in Chapters 1 and 2, with some of the other “realities” spreading across the borough, which are not, apparently, hindered by historic district lines. It uses Civic tech methods to access a large amount of parcel-level data and analyze them along these intricate boundaries. The particular datasets, identified during fieldwork as particularly relevant to changes taking place in the borough, concern rent-stabilized housing, property sales, and the presence of LLCs as owners of parcels in Brooklyn. Some professional reports that make use of these datasets are emerging out of private organizations, such as REBNY, Historic Districts Council, and the Furman Center. Use of these data in academic work, however, is lacking. There is also a need in academia to demonstrate, more broadly, what Open data and Civic tech have to offer, especially to Planning and Preservation scholarship, which this dissertation aims to do through examples.

#### Conclusion:

Each of these chapters is meant to contribute substantively and methodologically to an understanding of 21st century Preservation in Brooklyn. First, it investigates whether Preservation’s modern ideals appear to have been implemented in the new “wave,” which

is confirmed. Then, the case study demonstrates that local organizations in newly-designated districts are attempting to channel the processes and regulations of historic district designation toward protecting the existing social fabric of community. While the third chapter raises questions about the sustainability of this goal, since other development trends are occurring simultaneously, greater awareness about them will empower community groups as they move forward with their missions.

## CHAPTER 1:

### CENSUS DATA ANALYSIS OF BROOKLYN'S HISTORIC DISTRICTS

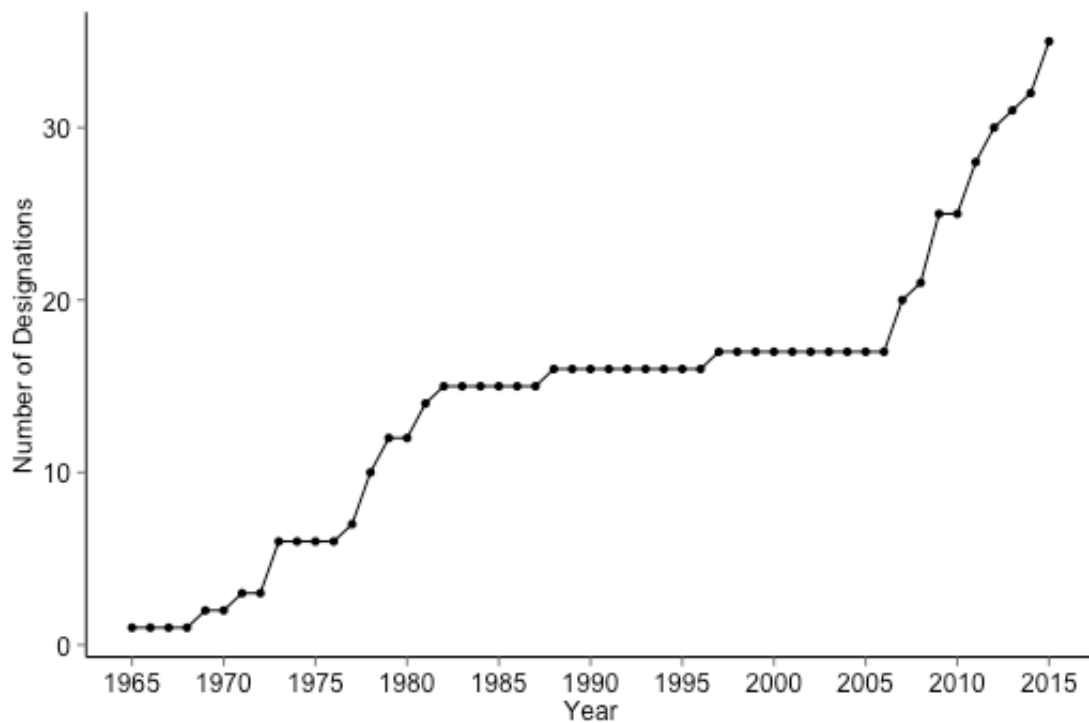
#### Introduction:

This chapter uses Census data analysis to enhance an understanding of the recent wave of historic districting that took place in Brooklyn, New York between 2007 and 2015, focusing on the population composition of the newly-designated districts. The overall premise is that designation during this era may have represented a tool for some of these communities to protect their social fabric amid increasing development pressures.

Building on several existing studies that also analyze Census data to study historic districts, which predominantly examine the relationship between historic preservation and gentrification, this chapter puts forth a slightly refined methodology. In the discussion of method, data accuracy is addressed, including the choice of Census observation unit.

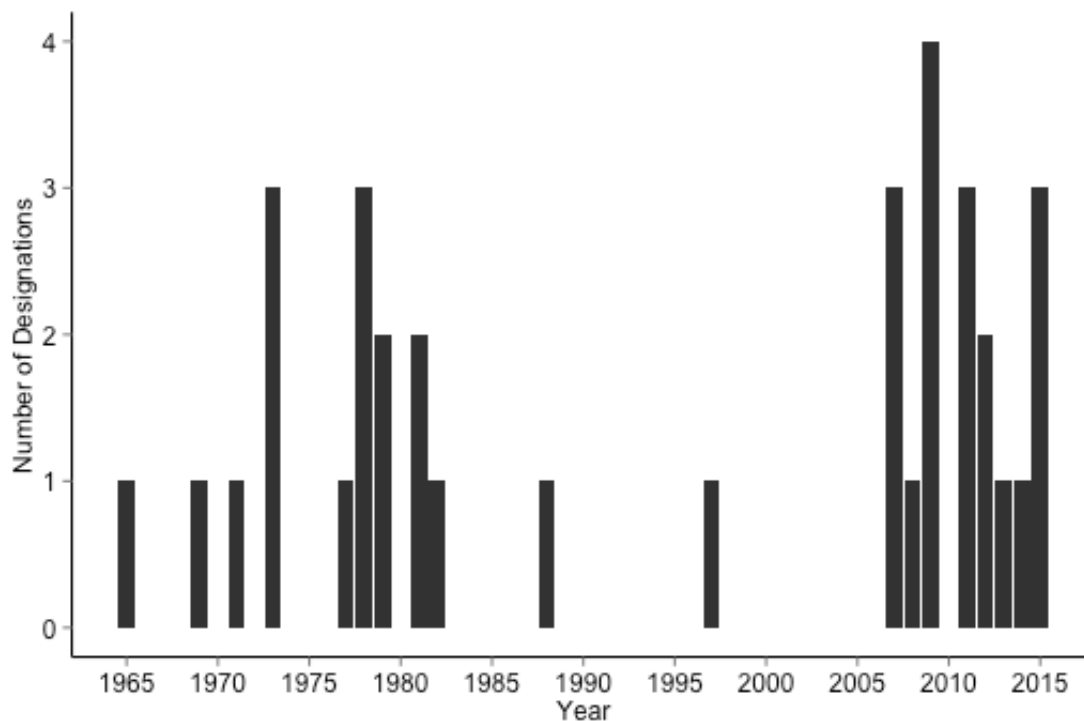
In the eight years between 2007 and 2015, seventeen new historic districts were created in Brooklyn, New York, doubling the borough's total number in this very short time span. Brooklyn's first historic district, Brooklyn Heights, was designated in 1965, just after the New York City Landmarks Law was signed into effect. It was the city's first historic district.





Graph 1: Cumulative Historic District designation in Brooklyn, New York (Data Source: NYC Open Data portal, 2016).

The graph above shows two waves of designations, between 1965 and 1982, and between 2007 and 2015. They differ in important ways. First, the early wave took place over twice as many years, and is relatively dispersed compared to the later one, which is emphasized in the following visualization.



Graph 2: Historic District Designations per Year in Brooklyn, New York (Data Source: NYC Open Data portal, 2016).

Also, the cultural contexts in which the two “waves” took place are very different. In the post-WWII decades, the dispersion of industry from city centers, and the draw of suburbia for middle-class residents, left many American cities struggling with neglect, crime, and poverty by the 1970s. Since Brooklyn was hit hard by these trends, the early Preservation movement there was characterized by passionate efforts to restore intact historic neighborhoods (Tomlan, 2015). A phenomenon that came to be known as “neighborhood preservation” spread nationally, with Brooklyn at the forefront. The designation of twelve historic districts across the borough in the 1960s and 1970s is emblematic of the neighborhood preservation movement occurring throughout Brooklyn during this period.

By 2000, however, central city areas across the country were again coveted for living and working by a huge range of people, including the most affluent. Brooklyn was no exception to this trend, and the events of 9/11 served to make the borough even more attractive to anyone who preferred some distance from Manhattan's financial center. With the borough becoming "hot," and boasting so many well-preserved historic neighborhoods from the previous four decades' work and care, the Preservation movement of the 21<sup>st</sup> century has had different needs and goals than that of the 1970s.

The area just north and east of Prospect Park became particularly sought after, replete with historic cultural amenities including the Brooklyn Museum, the Central Branch of the Brooklyn Public Library, and Frederick Olmsted-designed landscapes including Eastern Parkway and Prospect Park, and because, at the turn of the 21<sup>st</sup> century, much of the historic building stock was still relatively under-valued.

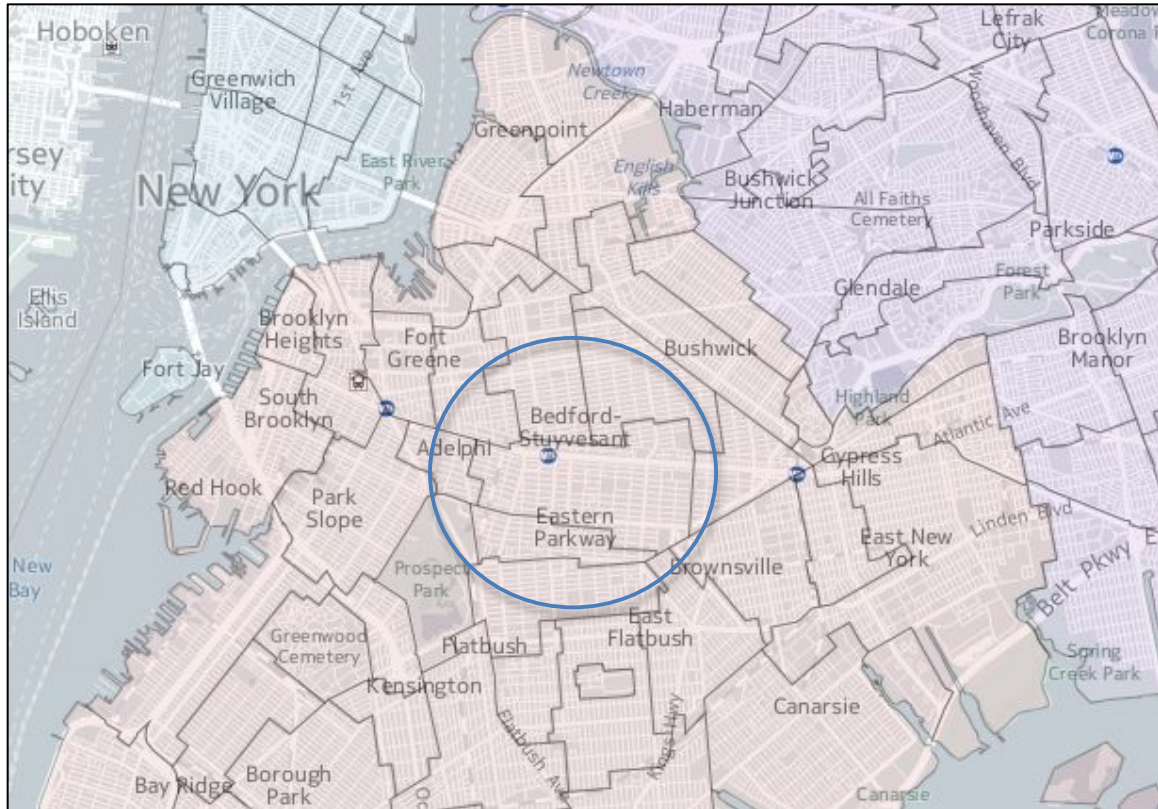


Image 1: Map of Brooklyn's neighborhoods, with Prospect Heights, Crown Heights, and Bedford-Stuyvesant, encircled in blue. (Data Source: CartoDB basemap, BYTES of the Big Apple for neighborhood boundaries (NTAs), 2016)

Under these circumstances, as this dissertation will provide examples to demonstrate, historic district designation came to be understood by existing communities as a tool for “self-preservation”—namely to hold back encroaching development pressures and retain their physical and social fabric. These two terms, “neighborhood preservation” for the 1970s and “self-preservation” for the 2000s, provide a useful framework through which to understand the different contexts of these two waves.

By asking, who is living in the historic areas that were not designated during the early wave, but who began to organize for designation in the 21<sup>st</sup> century, new light can be

shed on 21<sup>st</sup> century Preservation. If the new historic districts are characterized by inclusivity and diversity, just before the designations began, this supports the notion that communities would view it as strategy to protect their social fabric. To test this, Census data—the country’s main source of population data that is available at “small area geographies”—will be analyzed, comparing characteristics of the early and later-designated districts, their encompassing neighborhoods, and the borough on the whole. Before the analysis, though, several existing Census data studies of historic districts are reviewed, first emphasizing their research question, and then aspects of their methodology.

#### A History of Census Data Analysis in Historic Preservation Research:

Between the early 1970s and today, researchers have aligned Census data with specific preservation areas to analyze their populations. Reflecting the small number of such studies, however, Steven Tepper, noted Cultural Policy scholar, seems to have been unaware of this body of work in 2002 when he delivered a paper entitled, “Policy and Historic Preservation: A Preliminary Research Agenda” at a multi-disciplinary conference in Charleston, South Carolina. In the paper, he writes, “researchers should cross-walk Census information...with information about historic districts,” adding that doing so “would begin to paint a picture of the social and economic conditions that characterize such districts” (Tepper, 2002).

If not novel, Tepper's suggestion in 2002 is important for other reasons. First, it demonstrates the perceived dearth of research on populations in the context of Preservation, probably because the field's original focus was on historic buildings, and, most local Preservation law today still pertains exclusively to the built environment.

As he also notes, though, with the increasing availability of historic district spatial data and GIS software, preservationists' methodological toolbox is growing. As students in many Historic Preservation Masters programs across the country are taking GIS courses through which they learn to work with Census data, preservationists themselves can conduct their own studies of the field and the practice. Furthermore, especially since historic districting is on the rise again in cities across the country, there are new questions to ask.

The existing body of work is important because it sheds light on both *what* has been studied, and *how*. Though not a comprehensive review, several of the most frequently cited articles are discussed below. First, the papers' overall topics are addressed. Then, aspects of their methodology that are most relevant to this study are reviewed.

The early empirical studies of Preservation using Census data appear to have emerged in the mid-to-late 1970s, after historic preservation had experienced its first major rise in many American cities.<sup>1</sup> Though its positive impacts on the built environment were often

---

<sup>1</sup> According to the National Alliance of Preservation Commissions, between 1965 and the early 1980s, the number of cities with Preservation legislation grew from a handful to thousands.

remarkable, there was also a growing concern that these new efforts would lead to displacement of existing residents (McNulty & Kliment, 1976; Laska & Spain, 1980). As Richard Travis noted in his 1973 Ph.D. dissertation, physical change was likely to be accompanied by social change (Travis, 1973) and this idea drew interest from social science researchers. How would the social composition of neighborhoods shift in response to emerging historic preservation efforts? To address this question, researchers aligned Census data with historic areas undergoing targeted rehabilitation to approximate population characteristics and track changes over time. In a 1979 article, John O'Loughlin uses Census data from three Decennial Censuses (1950-1970) to examine changes in the population composition of two historic areas in New Orleans, Lower Marigny and Algiers Point, which were at different stages of housing restoration (O'Loughlin & Munski, 1979). In an anthology of essays, Back to the City (1980), Richard Fusch uses Census data from 1960 and 1970 to show that German Village, in Columbus, Ohio quickly became more affluent as historic preservation took root there (Laska & Spain ed., 1980). In a study of Charleston, South Carolina, Robert Tournier uses data from four Decennial Censuses (1940-1970) to show that, after Ansonborough was "labeled" a historic area, its racial and socio-economic composition diverged significantly from other similar areas (Laska & Spain ed., 1980).

The next several studies reviewed here query the relationship between official designation and "gentrification" more explicitly. This relationship is very complex, partially because the term gentrification has various understandings that have evolved over time. The word was coined in 1964 by sociologist Ruth Glass to describe changes

taking place in certain inner-city neighborhoods in London, where working-class residents living in the historic buildings were displaced, seemingly systematically, by affluent newcomers (the “gentry”), who used their wealth to upgrade the building stock. In the U.S., though, while historic inner-city neighborhoods also began to draw newcomers, the range of people re-investing in these areas was much more inclusive than the term connotes. For example, with “sweat equity” (their own labor), working-class families, young couples, and lesbian and gays are known to have incrementally restored historic neighborhoods in Pittsburgh, Savannah, and Brooklyn (Tomlan, 2015). Today, use of the term has expanded further, often referring to when an area begins to draw more affluent residents and businesses, independent of whether historic building stock even exists there.

Though multiple understandings of the term exist, the relationship between gentrification and designation is of interest to urban policy researchers, and, while historic districting itself slowed in the 1990s, studies that attempted to evaluate the effects of the early wave of designations, using Census data, began to proliferate (Tomlan 2015). Reflecting the fact that historic district designation does not have uniform effects across different places and times, researchers’ findings vary. Some of the studies reviewed in the following section argue that designation leads to gentrification, while others question that idea.

In 1992, Schuler, Kent, and Monroe use Census data from 1970 and 1980 to show that the historic district areas in Cleveland, Ohio were experiencing the greatest change in educational attainment, percent white residents, and rent levels (which they determine to



be the three key variables in gentrification), when compared to non-designated areas in the city (Schuler, Kent, and Monroe, 1992). In 2003, Loretta Lees uses Census data from 1970 through 2000 to compare changes in the population characteristics of Brooklyn Heights, NYC's first historic district, to New York City as a whole; her results suggest that Brooklyn Heights has experienced "super-gentrification" over this forty-year period (Lees, 2003). The question remains, though, if designation had not occurred at the time it did, would Brooklyn Heights *not* have experienced this trend? In 2010, in article that appeared in *The City*, a popular journal, economist Edward Glaeser conducts a cross-sectional analysis of designated versus non-designated areas in Manhattan using 2000 Census data and finds that the historic district populations are richer, more educated, and have a larger share of white people than the populations outside of them. He also finds that these variables' rate of increase since 1970 has been significantly greater in the designated areas (Glaeser, 2010).

In contrast, Coulson and Leichenko refute the notion that "historic preservation is a precursor to gentrification," in their analysis of Fort Worth, Texas between 1990 and 2000 (Coulson and Leichenko, 2002). Eric Allison's comparison of several historic districts to similar but non-designated areas in New York City, using Census data from 1950 to 2000, also does not support the claim that historic designation leads to gentrification (Allison, 2005). In the most recent contribution to this body of literature, published in a special edition of *Journal of the American Planning Association (JAPA)* in 2016, Brian McCabe and Ingrid Gould Ellen use Census data from 1970 through 2010 and find that historic district designation in New York City appears to accelerate socio-

economic improvement in an area, but not necessarily changes in racial composition or the costs of rent (McCabe & Ellen, 2016).

Having contextualized the history of Census data analysis in historic preservation research, in the next section, researchers' choice of Census observation unit will be addressed, to inform the methodology for others in the future. Whether there actually is a "dearth" of social scientific research about historic districts, as some of these scholars note, there are reasons to believe that Census data research will continue to escalate (Allison, 2005; Wells, 2011; Ryberg-Webster, 2014; Grevstad-Nordbrock, 2015; McCabe & Ellen, 2016, Avrami, 2016, Minner, 2016). Historic districts are proliferating in cities across the country with renewed gusto, and the spatial data and software required to analyze them are increasingly available through cities' Open Data portals (See Appendix 2). There is, however, a stubborn alignment issue between Census data and historic district boundaries, which affects the methodology.

#### The Significance of Historic District Boundaries:

Unlike other types of neighborhoods, whose boundaries are relatively fluid, historic district boundaries are carefully defined, jiggling and jaggling around subtle changes in the built environment, and they are fixed-in-place into posterity. Sociologically significant, they also present a logistical challenge in terms of achieving alignment with Census geographies.

Defining historic district boundaries can take months or years. Community input may be valuable but ultimately they are established by the Research Department of the Landmarks Preservation Commission. As McCabe & Ellen note, landmarked blocks in New York City (eventually) receive special street signs—brown, where the rest are green.



Image 2: Street signs in the Crown Heights North historic district, after designation. (Image source: Brownstoner.com, July 3, 2012)

While the sociological implications of these borders could comprise a study in itself (e.g. how do they affect people’s behavior?), they also relate to the methodological discussion at hand. The borders represent a divide between what kind of development is permitted on either side. Historic districts in “brownstone Brooklyn” are low-rise areas, but areas just adjacent to them may not be. In addition to differences in the built environment, there may be socio-economic differences too. For example, luxury residential towers may be located just outside a historic district, or, at the other end of the spectrum, large

Public Housing projects. This represents another reason to be careful about boundaries when studying historic districts: population data on either side of the border may reflect significantly different patterns of housing and development, especially in a city as dense as New York.

#### Example: Crown Heights West

Areas in between historic districts may become hot spots for development because they are close to, and have views of, traditional low-rise neighborhoods, and they share their cultural amenities, like a dense urban fabric, parks, gardens, and, often, good transit. In the early 2000s, an area between the historic districts of Crown Heights North and Prospect Heights, which became known as Crown Heights West, exploded in popularity among young couples and single people for these reasons. Indicative of the area's transformation, on a ten-block stretch of Franklin Avenue, a commercial street which runs north to south through the area, 70 new businesses opened and 43 closed between 2008 and 2013 (Juravich, 2013).



Image 3: Crown Heights West encircled in yellow; with green-shaded Prospect Heights historic district, red-shaded Crown Heights North historic districts, and Grand Army Plaza at the lower left side (Data Source: BYTES of the Big Apple for NTA boundaries, and PLUTO, NYC Open Data portal for LPC shapefile, 2016).

To house newcomers, residential towers were also built, because there were no height restrictions in the existing zoning, which had a major visual and social impact on the area. Concern over these developments among longer-term residents led Community Board 8 to initiate a “rezoning” campaign, to try to reduce new development, in quantity and height.



Image 4: Images depicted in City Planning’s rezoning study to illustrate residential towers constructed in the early 2000s in Crown Heights West. (Image Source: NYC City Planning Department website, Crown Heights West Rezoning Study, March 18, 2013).

In 2013, after several years of collaborative work between Community Board 8 and the City Planning Commission, with the support and assistance of local residents and elected officials, City Council approved a rezoning for a 55-block area in Crown Heights West. The rezoning introduced height restrictions on residential development, ranging from a maximum building height of 33 feet in certain areas, to 100 feet in others, depending on the character of the existing surrounding streetscapes (NYC Department of City Planning, 2013). It also adjusted the zoning of the commercial areas to better reflect the existing retail character of the area. Furthermore, to address concerns that the new residential units being created were mostly market-rate or luxury prices, unaffordable to much of the immediate community, an Inclusionary Housing-designated area was also created, from Sterling Place to Dean Street, along Franklin Avenue, which aims to incentivize the production of affordable residential units.



Image 5: Map depicting the Inclusionary Zoning area in City Planning's rezoning study (Image Source: NYC City Planning Department website, Crown Heights West Rezoning Study, March 18, 2013).

The story of the Crown Heights West rezoning campaign demonstrates Community Board 8's response to the dramatic changes that can happen in areas without Preservation regulations, in contrast to the historic district itself. Returning to the methodological issue at hand, if a Census unit encompasses land that is both inside and outside of a historic district, it may contain very uneven development, and different population characteristics on either side of the district boundary. Researchers using this data may wish, therefore, to try to reduce the extent of this ambiguity by using the smallest Census unit available. Before turning to the previous studies' choice of Census unit, the terminology is reviewed, and the methodological dilemma explicated further.

Census Geographies:



There are three small-area “Census geographies:” tract, block group, and block. Tracts are meant to contain approximately 4,000 people; block groups, 1,000; and blocks are about the size of a city block (and are not based on population). Census geographies are often rectangular in shape, and follow the outlines of major features in the built environment, such as large streets, parks, or plazas. They and the intricate historic district boundaries do not line up very well. The illustration below provides an example of several Census tracts in Brooklyn that are substantially both inside and outside of historic district boundaries.



Image 6: Brooklyn’s historic district polygons overlaid on Census tracts; five ambiguous Census tracts are highlighted in yellow (Data Source: U.S. Census, BYTES of the Big Apple, NYC Open Data portal, 2016).



In all but one study reviewed here, the authors choose the Census tract as the unit of observation. Only Schuler et. al. choose the Census block group. With either unit, the authors deal with the alignment issue in a variety of ways, and their choices reflect both the questions they ask as well as the data and technology with which they were working. A review of the existing studies' approaches provides a useful foundation for the different choice of Census block.

In the earlier studies from the 1970s and 1980s, the authors are not particularly concerned about precise boundaries of historic areas; they are looking at general neighborhoods undergoing housing rehabilitation, which represented a new phenomenon for the time. In O'Loughlin's study of Algiers Point and Lower Marigny, in New Orleans, and Tournier's study of Ansonborough, in Charleston, the authors do not even mention that there is an alignment issue between Census tracts and historic area borders. In Fusch's study of German Village in Columbus, Ohio, he acknowledges it, but only in a footnote: "German Village occupies parts of census tracts 52 and 57" (Fusch, 1980). Because of the historical context in which they were writing, these authors' interest was in the overall meaning and impact of preservation on the development of cities, not in designation per se, and their writing reflects this.

From the early 1990s onward, however, the authors begin to pay noticeably more attention to achieving proper alignment between the Census geographies and the boundaries of historic districts. A brief review of the different ways that Schuler, Kent,

& Monroe, Allison, Glaeser, and McCabe & Ellen address this issue will frame the approach put forth in this work.<sup>2</sup>

For Schuler, Kent, and Monroe, achieving proper alignment between Census data and historic districts is a topic in itself, and they seek to contribute to the literature on this point. Schuler et. al. utilize the Census block group over the tract, stating, “the reasons for this heavy dependence on tract-level data are not entirely clear given the availability of block group data for metropolitan areas” (Schuler, Kent, & Monroe, 1992). They see the tract as simply “too large” for studies of small neighborhoods. Even working with block groups, however, the authors admit, “some ad hoc judgments are necessary... to compensate for the lack of exact correspondence between the historic area boundaries and the census block group alignment.” Thus, even with block groups, the alignment issue persists.

Schuler et. al. are also the first authors to create, *a priori*, different classes of block groups based on their relationship to the historic district areas—intersecting the historic area, outside the historic area but within the same neighborhood, and the remainder of the study area. In the map below, the Group 1 block groups represent the historic district area, Group 2 the nearby area, and Group 3 the remaining area. Through this approach of classifying every observation unit, they can conduct a comprehensive analysis of their study area.

---

<sup>2</sup> Coulson & Leichenko (2002) and Grevstad-Nordbrock (2015) do not align Census geographies with historic district boundaries, but instead aggregate individual historically-designated properties by Census tract.

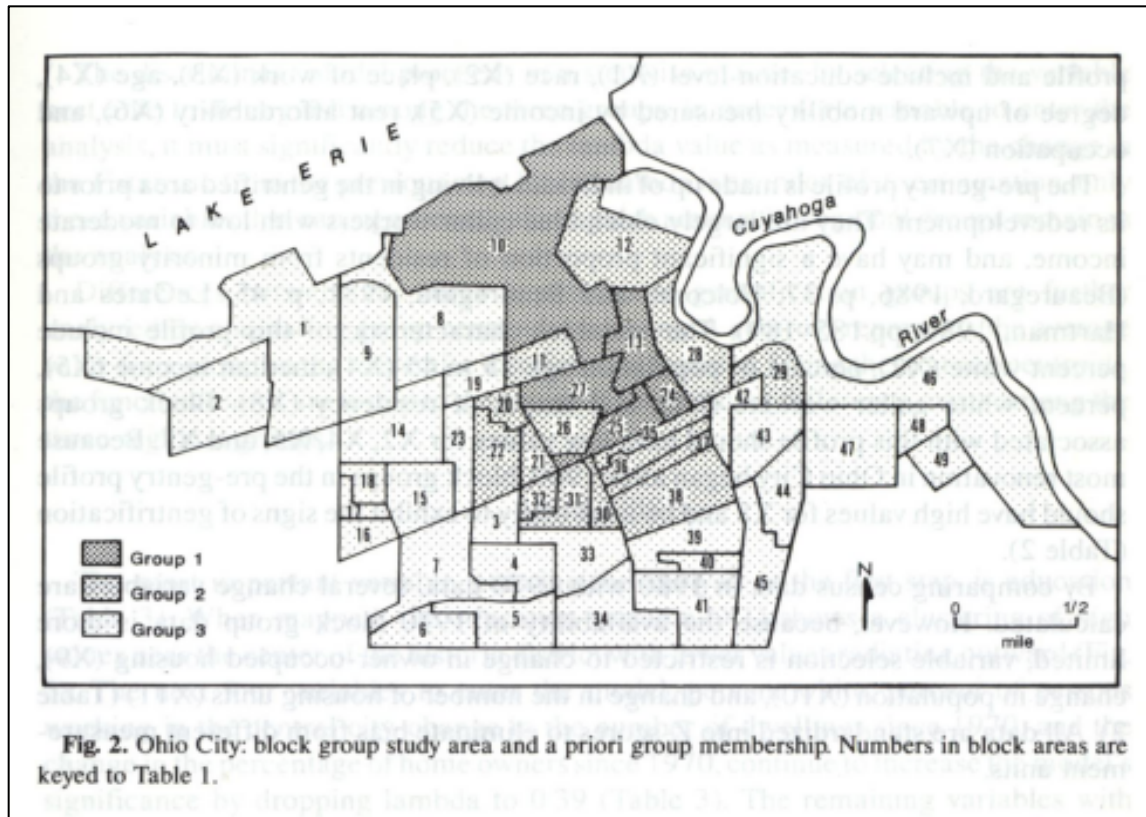


Image 7: Schuler et. al.'s study area, divided into three classes of Block groups (Image source: *Urban Geography*, 13 (1), 1992)

Eric Allison addresses the alignment issue differently in his dissertation by selecting “only those districts large enough to include entire census tracts” (Allison, 2005). This choice limits his study to nine of the over-one-hundred historic districts in New York City. In some cases, the alignment still appears to differ significantly. In the image below, the grey shaded area is the historic district, while the census tracts are outlined in blue. On the left side, there are ten city blocks unwittingly captured, and on the right side, five left out. As the discussion of Crown Heights West illustrates, including areas on the edge of historic districts, may misrepresent the historic district itself.

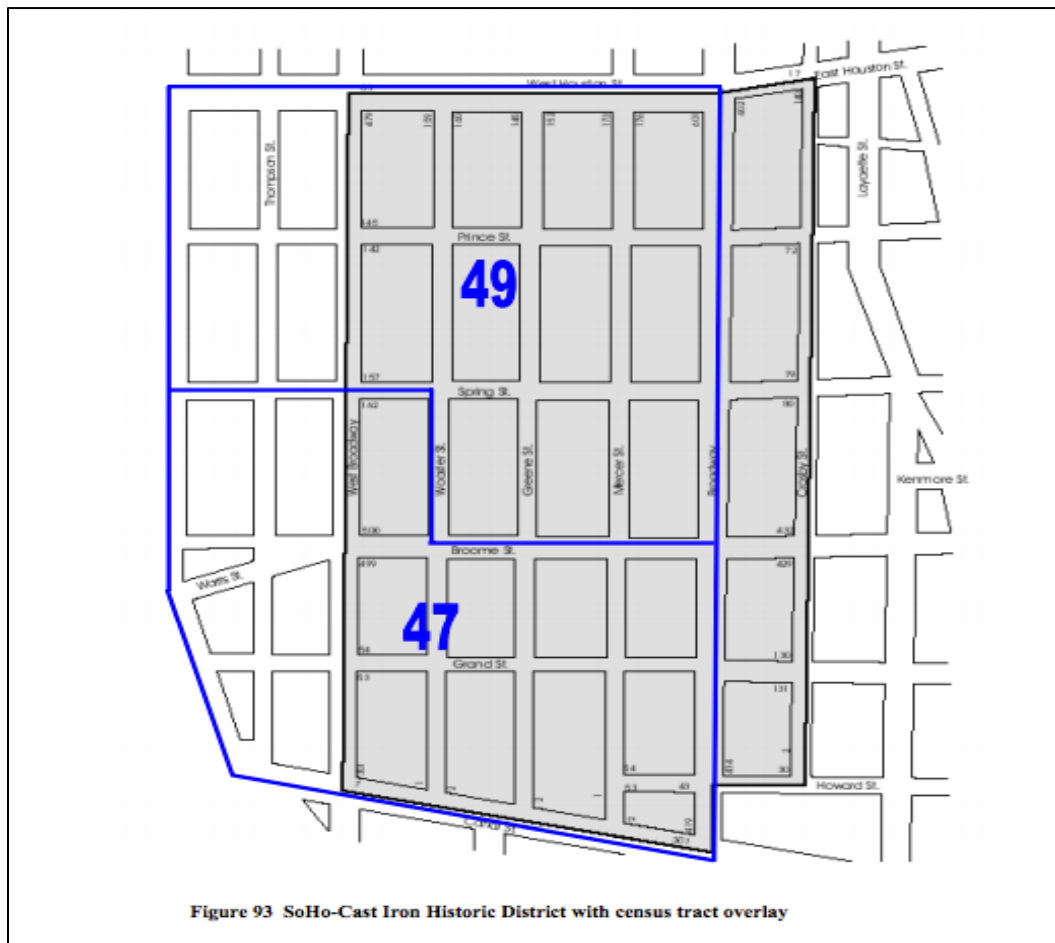


Image 8: Ten blocks on the left side are misrepresented as being within the historic district, and five blocks on the right side are not included. (Image source: [http://www.allisongroup.com/ericwallison/wp-content/uploads/2012/08/EWA\\_Dissertation\\_Full.pdf](http://www.allisongroup.com/ericwallison/wp-content/uploads/2012/08/EWA_Dissertation_Full.pdf)).

Edward Glaeser also acknowledges, “historic districts don’t match up exactly with census tracts;” thus, he, like Schuler et. al., defines three categories of tracts: “those that have no territory within a historic district; those that have some; and those with a majority of land in an historic district”(Glaeser, 2010). Again, the same problem emerges: even a tract with 60% of its territory inside a historic district is likely to have at least 1,600 people living outside the historic district--people who will be counted as living inside. In a city as dense as Manhattan, this number could be up to 4,000. Including information about so many people outside the district may distort analysis of conditions inside of it.

Finally, in the most recent contribution to this line of research, “Does Preservation Accelerate Neighborhood Change?” (2016), Brian McCabe and Ingrid Gould Ellen explain their methodology in great detail. The authors conduct a comprehensive study of New York City’s historic districts (ending at districts designated by 2009) by first identifying all Census tracts that have a population over 100 and are within the thirty-two Community Boards across the city that contain some portion of a district. Then, in a similar manner to Schuler et. al. and Glaeser, they create different classes of tracts (in their case, four) in relation to their share of historic district parcels 0-25%, 25-50%, 50-75%, and 75% or more. Having prepared the data in such a way, they employ various statistical tests to generate their findings.



Image 9: McCabe and Ellen's method for grouping Census tracts according to their share of parcels within historic districts. (Image source: *JAPA* 82 (2), 2016).

These four studies each implement a different approach to the alignment issue between Census geographies and historic district boundaries. While Schuler et. al. opt for the block group to achieve improved alignment over the tract, the other three studies continue with the tract. While Allison limits his sample to districts that are large enough to contain entire tracts, which brings the number of districts available for analysis down from over 100 to nine, the other three studies conduct comprehensive analyses of Ohio City, Manhattan, and NYC respectively, creating, *a priori*, different categories of their observation unit, based on their fit with the historic districts. Schuler et. al. and Glaeser have three categories, while McCabe & Ellen have four. The latter two's approaches also differ slightly in that Glaeser tests for fit with historic districts based on the tract's share

of land in the historic district, while McCabe & Ellen test for fit based on the tract's share of parcels within historic districts.

Building on these examples, this study proposes going down one level of geography further, to the Census block--the smallest Census unit. Because of its small size, there are only two categories of blocks: *in*, if the center point of the block lies in the historic district, or *out* if it does not. Blocks are estimated to be size of a city block, thus they will not be more than a block off in their alignment with historic districts, and much of the time will be completely within the boundaries.

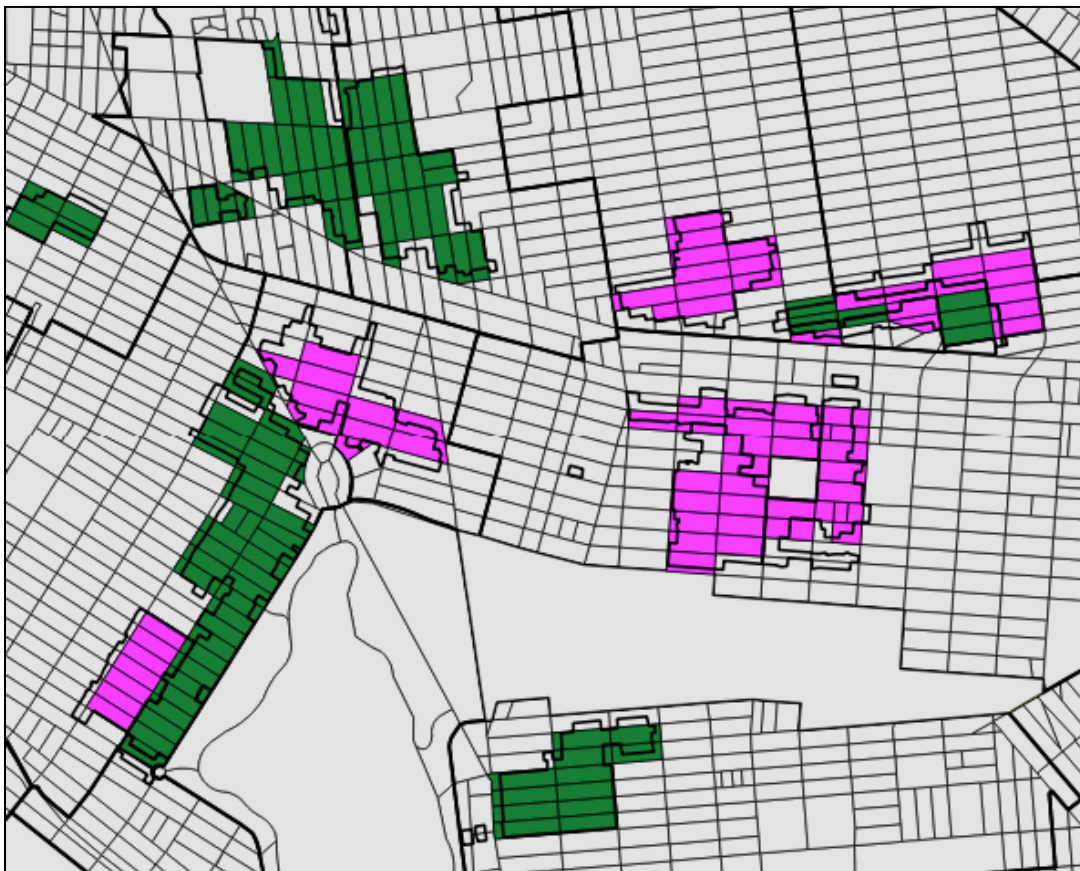


Image 10: Central Brooklyn near Prospect Park (lower left). The blocks identified as *in* the historic districts are highlighted--green in the earlier-designated, and pink in the newly-designated. (Data Source: U.S. Census, BYTES of the Big Apple, NYC Open Data portal, 2016).



### Other Methodological Considerations:

There are also considerations in the use of the tabulated Census data. Whereas basic demographic data of the Decennial Censuses are considered “full count,” all socio-economic data come from sampling the population and carry margins of error (MOEs). Major changes in the format and methodologies of the U.S. Census introduced after the 2000 Census impact these margins of error significantly for small-area geographies.

Through 2000, socio-economic data were collected through the “Long Form,” a component of the Decennial Census, which was distributed to 1 in 6 households. Long form margins of error were considered manageable, and because they were not published with the original data, researchers generally did not report them with their findings. Starting in 2005, however, a new system was introduced to capture data on the U.S. population in shorter intervals than ten-year time spans. A Decennial Census would continue to collect basic demographic data, legacy of the 1787 Constitution that mandates a population count every ten years, but the new American Community Survey (ACS) would output data on a yearly-basis, picking up the other more detailed Census variables which were previously in the Long Form, including all socio-economics like income, educational attainment, employment, and percentage of income spent on rent (Anderson, 2010).

Because the ACS is distributed to 1 in 40 households, (Francis, Tontisirin, Anantsuksomsri, Vink, & Zhong, 2015), these data carry higher margins of error than the



Long Form. In fact, MOEs in the ACS are sometimes so large for small-area geographies that they exceed the estimate itself, at which point, the data is considered unreliable (Campbell, 2015). Furthermore, because MOEs are released alongside the original data in the ACS, researchers now have more of a responsibility not only to take them into account, but also to report them publicly with their results. Thus, the replacement of the Long Form with the ACS is considered a game-changer for socio-economic data-users, especially when working with tracts and block groups.

For the most part, the socio-economic data used in the studies reviewed in this dissertation depend on the Long Form and not the ACS (using Census data from 1950 through 2000), which reduces their accuracy issues. Future research, however, that uses socio-economic data at the tract and block group level will face high margins of error. For this reasons, it is timely to at least consider making use of Decennial Census demographic data only, which have no margins of error, and are considered “the closest thing to absolute perfection” that the Census Bureau can produce (Campbell, 2015).<sup>3</sup> Though socio-economic and housing variables, due to privacy policies in the Census, are not available at the block level and may seem to limit researchers’ lines of inquiry, the demographic variables that are available at the block level are still very informative and should not be underrated.

Data Sources:

---

<sup>3</sup> The homeless, and other groups, like illegal immigrants, are known to be missed by the Census unwittingly.

This study has two primary data sources: the U.S. Census and New York City’s Open Data portal. From the U.S. Census, it uses Summary File 1, Block-level demographic data from the 2000 and 2010 Decennial Censuses for the variables of Total Population, Age, Sex, Tenure, Race, and Tenure by Race. Population Density is calculated from Total population and Land area. Census blocks in spatial format come from the Census Bureau’s TIGER/Line database.

The other key data source is NYC’s Open Data portal, for two local spatial datasets: the historic district shapefile, maintained by the Landmarks Preservation Commission and the City’s neighborhood shapefile, called “Neighborhood Tabulation Areas” (NTAs), created by the City Planning Commission to approximate neighborhoods and follow Census tract lines (which is also posted on the BYTES of the Big Apple webpage). These shapefiles require editing. Since in their original form, they are citywide, both need to be limited to Brooklyn only. For the historic districts, two subsets are created, those designated between 1965 and 2007 and between 2007 and 2015.<sup>4</sup> For the NTAs, a subset is created that contains some portion of a historic district, totaling fifteen.

---

<sup>4</sup> More editing was necessary for the LPC shapefile because there are repeat districts included, and designation dates are always not up-to-date. The method of cleaning this dataset was carefully done to contain 34 designated districts—17 designated prior to 2007, and 17 between 2007 and 2015.

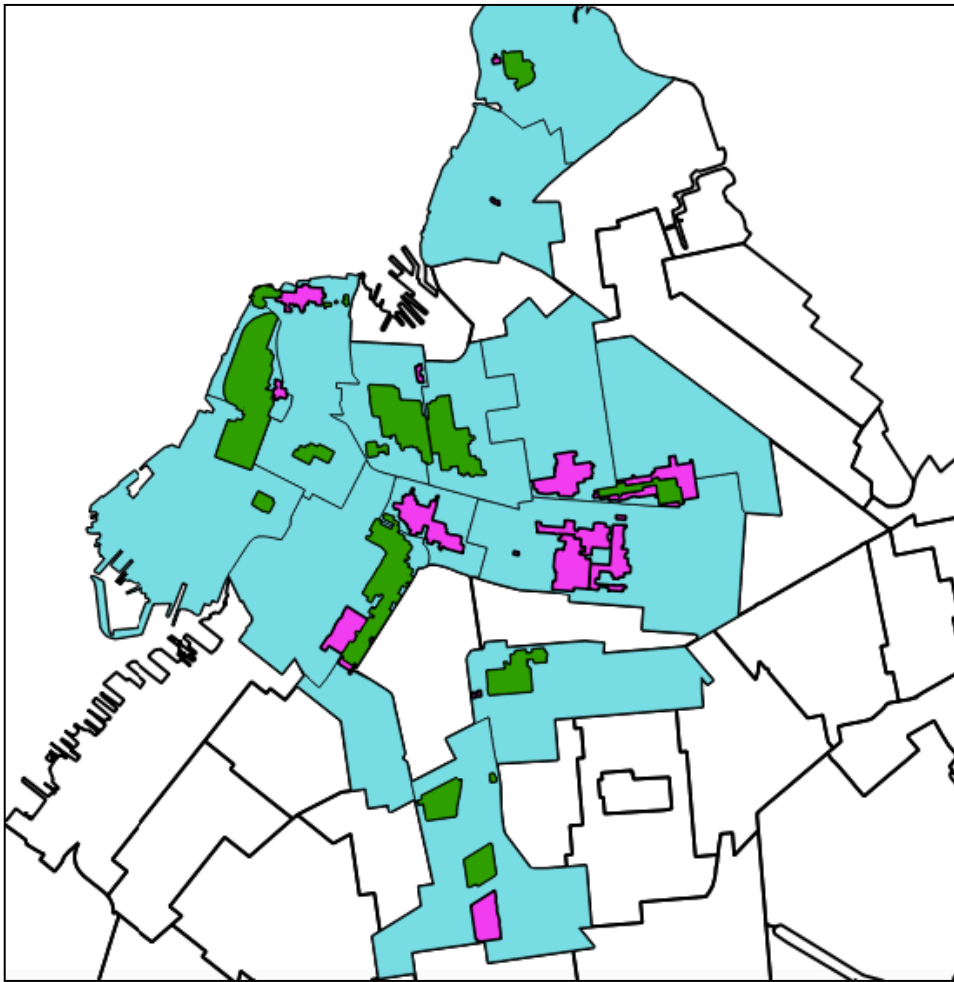


Image 11: Map of Brooklyn, with blue NTAs representing those that contain some portion of a historic district (HD). The early HDs are in green, and the new HDs are in magenta (Data Source: U.S. Census, BYTES of the Big Apple, NYC Open Data portal, 2016).

In GIS, the four lists of the Census blocks are compiled, aligning with each of these spatial groups—early-designated districts, newly-designated districts, the encompassing NTAs, and borough--which we then join to the Census block level demographic data to generate the results.<sup>5</sup>

---

<sup>5</sup> Historic district blocks have their Centroid in the historic district. The historic districts blocks were not excluded from the neighborhoods and borough, so as not to skew the data on those neighborhoods.

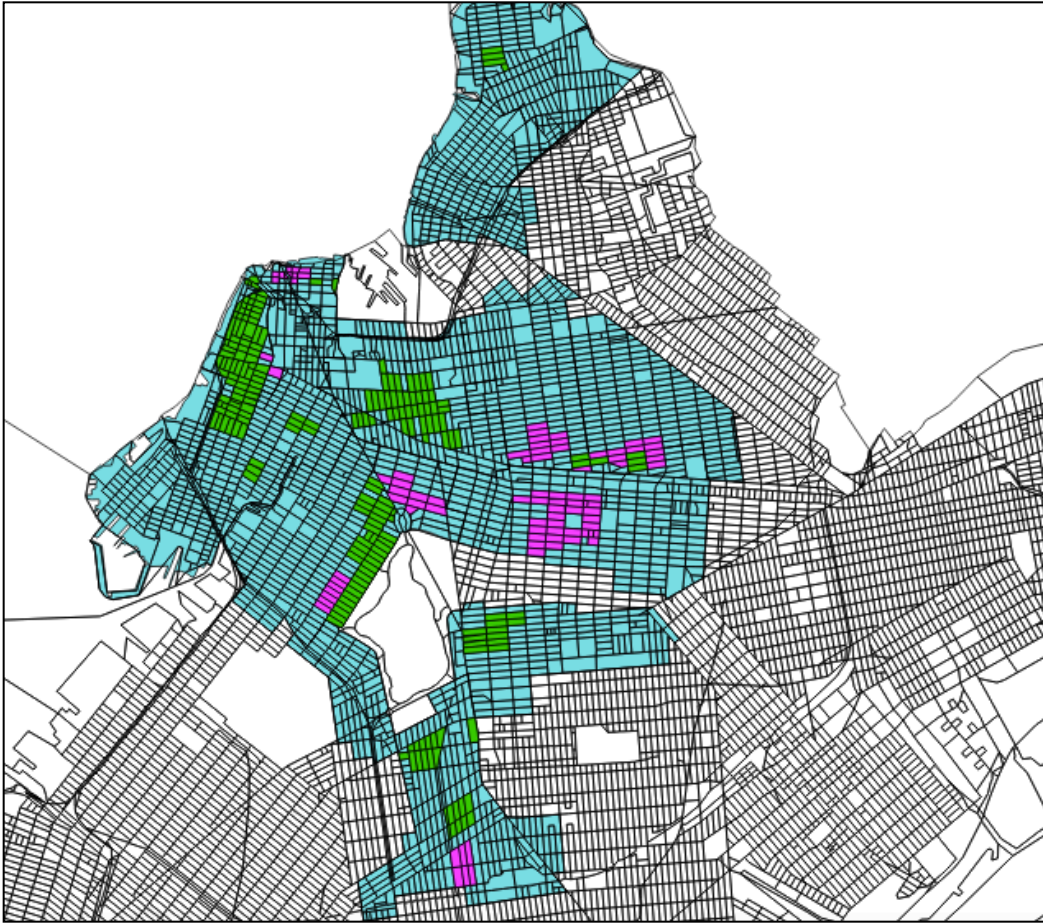


Image 12: Blocks in green are those in the early-designated; in pink, the newly-designated; in blue, the encompassing neighborhoods; in white, the borough. (Data Source: U.S. Census, BYTES of the Big Apple, NYC Open Data portal, 2016).

For each spatial group, we end up with  $n = 212$  for the early historic districts;  $n = 90$  for the new historic districts;  $n = 2037$  for the 15 encompassing neighborhoods; and  $n = 7725$  for the whole borough. For 2010, we have slight differences due to block boundary changes:  $n = 213$ , 92, 2055, and 7730, respectively.

Table 1: Number of blocks aligning with each geographical group (Data Source: U.S. Census 2000 & 2010, BYTES of the Big Apple, NYC Open Data portal, 2016).

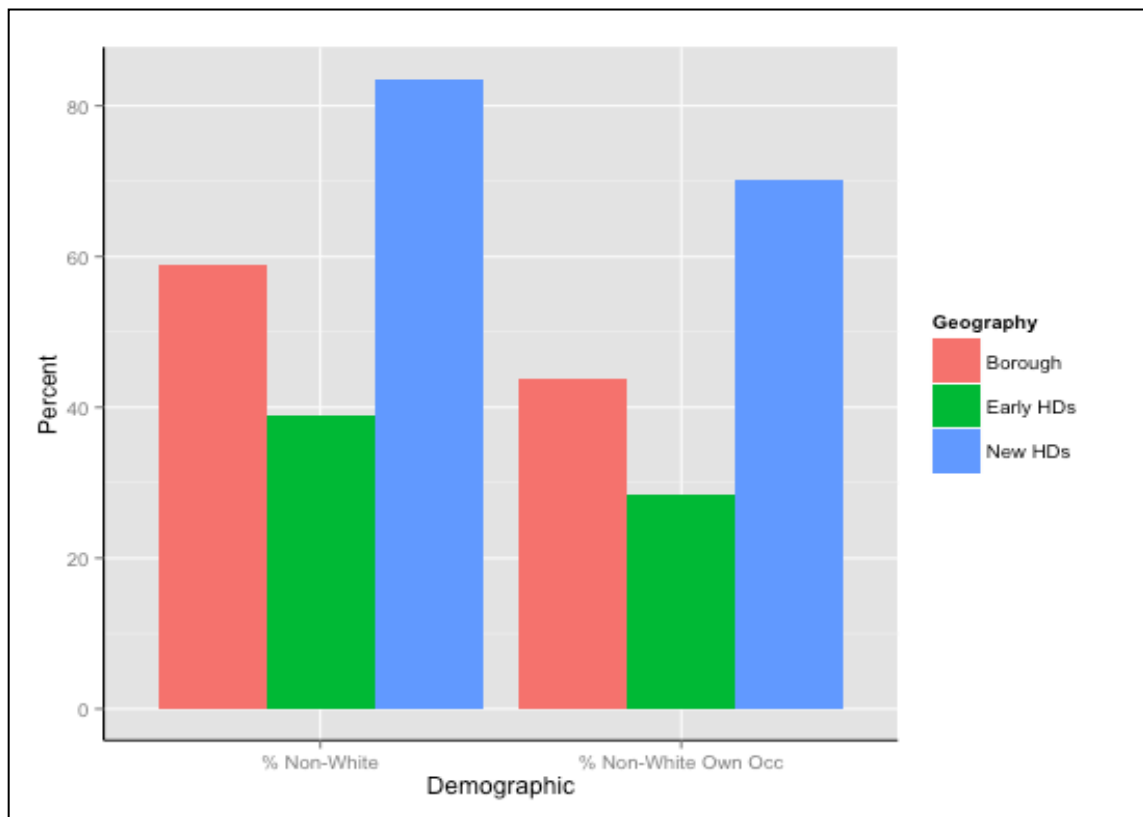
<i>Year</i>	<i>Early HD</i>	<i>New HD</i>	<i>15 NTA</i>	<i>Borough</i>
2000	212	90	2037	7725
2010	213	92	2055	7730

The following table summarizes the results of the aggregated data for each group.

Table 2: Block level data (Data Source: U.S. 2000 Decennial Census, BYTES, NYC Open data portal)

<i>SFI DATA 2000 CENSUS</i>	<i>EARLY</i>	<i>NEW</i>	<i>15 NTA</i>	<i>BROOKLYN</i>
Total Population: 2000	75,239	39,076	744,688	2,465,326
Population Density: 2000	58,714	58,672	55,939	45,599
Median Age: 2000	37.42	35.23	33.41	34.21
% Female: 2000	51.54	54.50	53.63	53.09
% Owner-occupied: 2000	34.75	24.86	20.52	27.07
% Renter-occupied: 2000	65.25	75.14	79.48	72.93
% White: 2000	61.20	16.39	30.47	41.20
% Non-white: 2000	38.80	83.61	69.53	58.80
% White owner-occupied: 2000	71.59	29.72	49.00	56.17
% Non-white Owner-occupied: 2000	28.41	70.28	51.00	43.83

Noting the most salient differences among groups in the variables race, and tenure by race, the following bar graph presents that data alone.



Graph 3: Percentage Non-white, and Percentage Non-white Owner occupied housing units in three geographic groups (Data Source: U.S. 2000 Decennial Census, NYC Open data portal).

As the table and graph convey, the data strongly suggest that the newly-designated districts are significantly more diverse and inclusive than the earlier-designated districts, their broader neighborhoods, and the borough on the whole. This lends credence to the possibility that, for the communities who organized for designation, historic districting was understood as a strategy to help preserve their social fabric. The following comments describe the results in more detail.

### Race:

For race, the percentage of non-white residents in the areas to become designated was over twice the percent in the already-designated ones (84% to 39%); and significantly greater than the percent in the borough on the whole (84% to 59%) and the fifteen encompassing neighborhoods (84% versus 70%).

### Tenure:

For tenure, the percentage of renter-occupied housing was higher in the areas to become designated than both the already-designated districts and the borough on the whole (75% to 65% to 73% respectively). As a subset of their broader neighborhoods, however, it was slightly lower (75% to 79%).

### Tenure by Race:

For the final data point, the percentage of non-white home-ownership in the areas to become districts was two and a half times more than the percentage in the earlier-designated districts (70% to 28%), and significantly greater than the borough and the encompassing neighborhoods too (70% to 44% to 51% respectively).

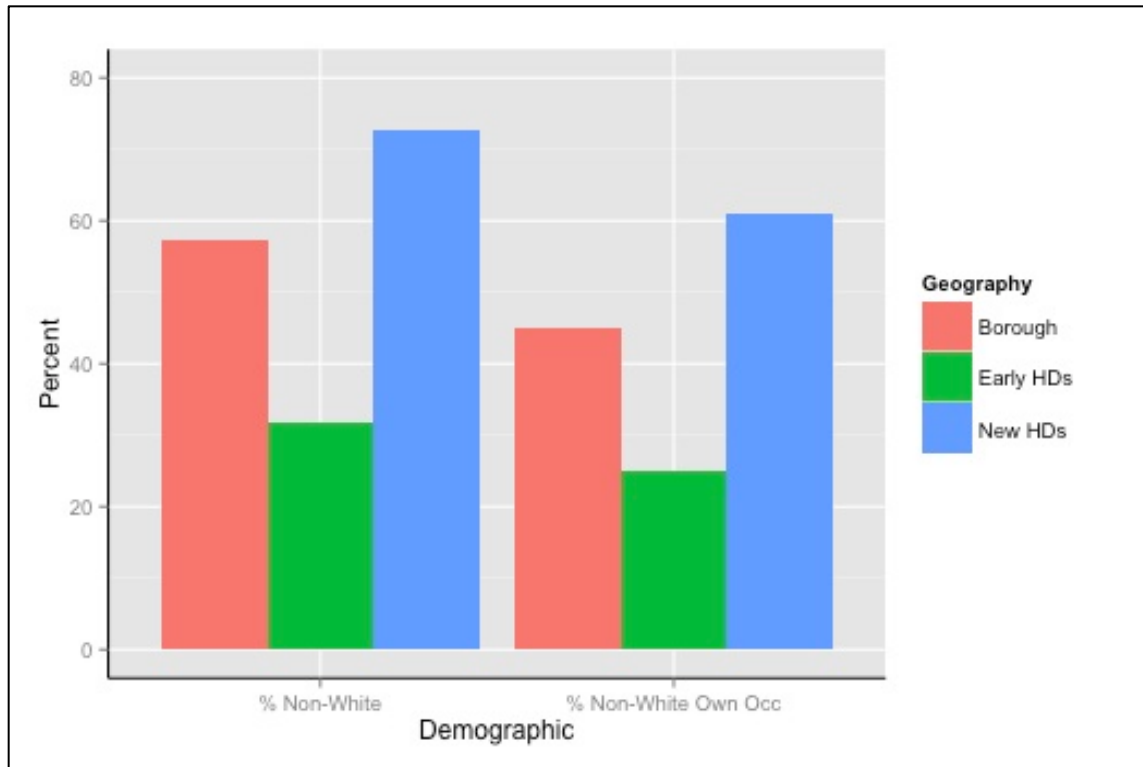
It was determined to use the data from 2000, shortly before campaigning for the new designations began. The same data from 2010 follow.

Table 3: Block level data (Data Source: U.S. 2010 Decennial Census, BYTES, NYC Open data portal)

<i>SFI DATA 2010 CENSUS</i>	<i>EARLY</i>	<i>NEW</i>	<i>15 NTA</i>	<i>BROOKLYN</i>
Total Population: 2010	71,373	38,741	755,967	2,504,700
Population Density: 2010	52,935	58,091	56,612	46,786
Median Age: 2010	38.77	38.08	34.79	35.76
% Female: 2010	52.86	54.18	53.49	52.83
% Owner-occupied: 2010	39.32	25.96	22.27	27.73
% Renter-occupied: 2010	60.68	74.04	77.73	72.27
% White: 2010	68.36	27.3	39.49	42.8
% Non-white: 2010	31.64	72.7	60.51	57.2
% White owner-occupied: 2010	75.15	39.02	55.63	55.02
% Non-white Owner-occupied: 2010	24.85	60.98	44.37	44.98

Between 2000 and 2010, there are significant changes in every variable in every spatial group from —confirming this was a decade of transformation for Brooklyn. As the graph below shows, the differences among the groups for race, and tenure by race, are still generally consistent with those from 2000.





Graph 4: Percentage Non-white, and Percentage Non-white Owner occupied housing units in three geographic groups. (Data Source: U.S. 2010 Decennial Census, Open data portal)

For the purposes of this study though, the 2000 results remain the most germane because they portray the demographic conditions of the two subsets of historic districts *before* the wave of designations. What happens after designation comprises a different line of inquiry that scholars will probably be interested in examining. Specifically, emphasis may be placed on whether the newly-designated districts are *converging* with the earlier-designated ones in terms of their population composition. The Census data methodology described here can be applied when the 2020 Decennial Census data are released to investigate this question. In the meantime, specific mechanisms that may currently be contributing to incremental population change in and around these areas will be addressed in Chapter 3.

## Conclusion:

In conclusion, this chapter draws attention to a specific wave of historic districting that took place in Brooklyn, between 2007 and 2015. Not only is the increase in districts more dramatic than one that occurred over the course of the 1970s, but also, the cultural context is very different. Whereas designation across many U.S. cities during the 1970s was part of the movement to restore neighborhoods that experienced some abandonment following WW II, in 21<sup>st</sup> century Brooklyn, designation may be helping communities resist rapid change brought about by development pressure. These two waves can be thought about as “neighborhood preservation” and “self-preservation,” respectively.

This context establishes the motivation to use Census data to find out who was living in the areas that were recently designated. First, the chapter briefly reviews several studies dating from the 1970s to 2016 that use Census data to analyze population issues in historic districts, discussing the questions they asked, and certain aspects of their methodology. These studies tend to focus on the relationship historic preservation and gentrification. No one has yet examined a “recent wave” specifically. This is a new topic that warrants attention in policy and academia.

A chronological perspective on the existing studies also demonstrates developments in geospatial data and technology, such as the increasing availability of GIS software and historic district shapefiles. This study suggests that researchers consider using the Census block, rather than the Block group or the Tract, for its improved geographical precision

with historic district boundaries, and because the lack of socio-economic data at the Block level may be counterbalanced by the fact that some of their basic demographic indicators are still quite illuminating, and are “100% count.”

As for the results, the newly-designated districts appear to be *significantly* more inclusive and diverse than, not only the earlier-designated districts, but also the borough and even just the broader neighborhoods they are in. These results suggest that Brooklyn’s wave of designations between 2007 and 2015 can be understood as embodying some of Preservation’s most important theoretical developments discussed in the Introduction, while seeming to represent a use for communities to preserve their social fabric in the face of intensifying development pressures. The next chapter will explore how designation may function toward this end through a case study of Crown Heights North.

## CHAPTER 2:

### THE USES OF PRESERVATION: CROWN HEIGHTS NORTH<sup>6</sup>

#### Introduction:

This chapter turns to Central Brooklyn, where the majority of new historic districts are located, and looks specifically at the area known as Crown Heights North. This is a large neighborhood bordering Bedford and Stuyvesant Heights to the north, Prospect Heights to the west, Crown Heights South to the south, and Brownsville to the east.

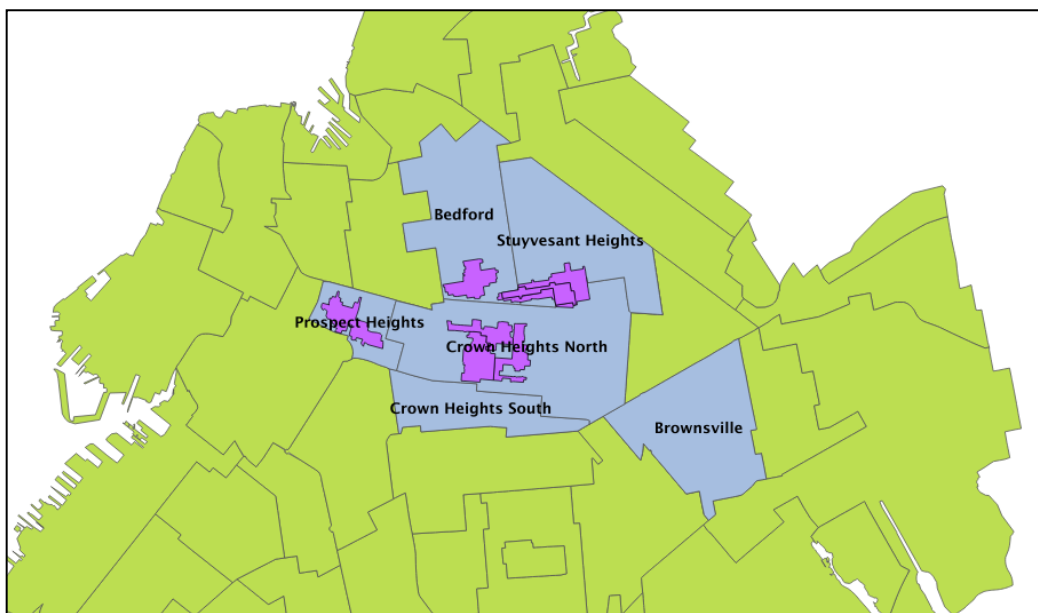


Image 13: Map of Brooklyn's neighborhoods, as defined by the City Planning Commission, with Crown Heights North and surrounding neighborhoods shaded in blue, and their historic districts in purple (Data Source: BYTES of the Big Apple, NYC Open data portal, 2016).

---

<sup>6</sup> In order to maintain their anonymity, in some instances throughout this chapter, I have changed the names of individuals and places.

As shown by the purple historic district polygons in the image above, Crown Heights North has three adjacent historic districts. Its first district, represented by the polygon that spans west to east, forming the “top” of the Crown Heights North square, was designated in 2007. Crown Heights North “Historic District II,” which spans north to south, on the west side, was designated in 2011, and Crown Heights North “Historic District III,” which spans north to south, on the east side, was designated in 2015. No other neighborhood in the history of Preservation in New York City has secured three designations in such a short time period.

In light of the ten-year hiatus in designations in Brooklyn between 1997 and 2007, and the seventeen designations that came in the following eight years, Crown Heights North can be understood to have jump-started the new wave, especially for the districts in its vicinity. For example, the Prospect Heights Historic District was designated in 2009. The Stuyvesant Heights Historic District, designated in 1971, was expanded in 2013, and the Bedford Historic District was designated late in 2015. Two other small historic districts, each comprising only a fraction of a full city block, were also designated in the area in 2009 and 2012—Alice and Agate Court Historic District, and Park Place Historic District, respectively.

Using Crown Heights North as a case study, this chapter describes the origins and development of the Preservation movement there, aiming to demonstrate the community’s goals for designation, as well as their strategies to achieve them. These observations were developed by living in Crown Heights North Historic District Phase I

for eight months, from June 2014 through January 2015, and assisting the neighborhood's main preservation organization with its goals for six of the eight months.

#### Background:

Crown Heights North has a distinctive social and cultural history that informs the events and changes taking place there today. The earliest-known inhabitants of most of Long Island, including the areas that became Brooklyn and Queens, were the Lenape (or Delaware) Indians. They lived in small communities of grass or bark-covered wigwams, and in larger settlements located on higher ground near fresh water (Landmark Preservation Commission, 2007<sup>7</sup>). According to a history of Brooklyn written in 1884, small numbers of Dutch and English began to “purchase” land from the Lenape in the early 1600s, and had acquired most of Brooklyn by 1640. The first European settlement in the Crown Heights North area dates back to 1662. A village, Bedford Corners, was established, which expanded in the 1700s with developments in transportation. Dutch land-owners there held slaves. Evidence of a burial ground for persons of African ancestry is located at the western edge of the area (LPC, 2007).

After slavery ended in New York State in 1827, two African-American communities developed on either side of Crown Heights North—Weeksville to the east, and Crow Hill to the west. Weeksville was subsumed into Crown Heights North, but its African-American history was rediscovered in 1968, which the Weeksville Heritage Center

---

<sup>7</sup> LPC designation reports are written by professional historians in the Research Department, and provide detailed social and architectural histories of historic districts.

honors and promotes with innovative cultural events today. Crow Hill is understood to be part of Crown Heights West today, though people continue to identify as residents of Crow Hill specifically, with an active Crow Hill Neighborhood Association working on the community's goals.

Around the turn of the 20<sup>th</sup> century, after the opening of the Brooklyn Bridge, Crown Heights North developed intensively, and the area that now encompasses the historic districts acquired a new name—the “St. Marks District.” Residents of this area were predominantly middle-class and wealthy white families of Northern and Western European descent. A diversity of building styles, including multi-family dwellings and large apartment buildings on the peripheries of the area, made it more accessible to a wider range of residents (LPC, 2007).

Though major developments in housing construction ceased after the Depression, changes continued. In 1936, the New York City Subway opened beneath Fulton Street in Central Brooklyn, providing direct access from Harlem to the neighborhoods of Bedford Stuyvesant and Crown Heights North, which extend on opposite sides of Fulton Street (north and south, respectively). As African-Americans began to move from Harlem to Brooklyn, they predominantly settled in Bedford-Stuyvesant, which by 1950 was more than 80% black, with some settling in Crown Heights North (LPC, 2007). At this time, there were small populations of Caribbean immigrants in Central Harlem and Bedford-Stuyvesant (Kasinitz, 1992).

In 1965, however, when the national quota system for immigrants was eliminated, the number of Caribbean immigrants in New York City began to grow rapidly, and they predominantly settled in Crown Heights North (Kasinitz, 1992). Reflecting this growth, by 1967, the annual West Indian-American Day parade, which originated in Harlem in the 1940s, had moved to Eastern Parkway in Crown Heights (LPC, 2007). Many of these early Caribbean immigrants saved their money and became owners of the brownstones there, as Paule Marshall vividly describes in his novel of 1959, Brown Girl, Brownstones (Marshall, 1981). By 1990, Crown Heights North was considered to be the center of Caribbean-American life in the United States. The West Indian-American Day parade continues to march down Eastern Parkway every Labor Day weekend, and lays claim to New York City's largest annual cultural event, attracting an estimated two million spectators.

In the 21st century, the neighborhood is still majority African-American and Caribbean. As for the historic districts themselves, the Census data methodology described earlier can provide a precise approximation of its demographics. In 2000, the area comprising all three districts was 93% Black (meaning “Black, African-American, or Negro,” which was the full name of the category in the 2000 and 2010 Census), 17% owner, and of the owned units, 94% were Black-owned. These are extremely high rates of Black population and ownership for Brooklyn, though ownership overall is lower than the borough’s, as depicted in the table below.



Table 4: Decennial Census data of Crown Heights North in the 21<sup>st</sup> century (Data Source: U.S. 2000 and 2010 Decennial Census, NYC Open data portal).

<i>2000 Census Block level data</i>	<i>Crown Heights North Historic Districts</i>	<i>Brooklyn</i>
% Black	93%	36%
% Owner Housing Units	17%	27%
% Black-owned HU	94%	30%
2010 Census		
% Black	84%	34%
% Owner Housing Units	19%	28%
% Black-owned HU	87%	29%

These data convey the extent of the Black population's social and economic ownership of the neighborhood when campaigning for designation began.

Crown Heights North Association:

The story of historic district designations in Crown Heights North is inextricable from the work of the Crown Heights North Association (CHNA), which was founded in 2002 explicitly to obtain historic district status for large portions of the neighborhood. By building local political support, working effectively with existing preservation organizations, especially the citywide advocacy organization, the Historic Districts Council (HDC), and engaging hundreds of community members in their campaign, CHNA had an astounding record of success during its first thirteen years.<sup>8</sup>

---

<sup>8</sup> In order to maintain their anonymity, in some instances throughout this chapter, I have changed the names of individuals and places.

In 2001, a small group of neighbors, led by Ms. Green and Ms. Simpson, began to have discussions on the stoops of St. John's Place, between Brooklyn and New York Avenues in Crown Heights North, about the possibility of obtaining historic district status for their neighborhood ("About Us," *Crown Heights North Association* website). Looking around them and knowing that large portions of Crown Heights North were historically intact and architecturally stunning, they wanted Crown Heights North to gain the designation its built environment clearly warranted.

Ms. Green also knew that the Landmarks Preservation Commission (LPC) had surveyed Crown Heights North in 1978, recognizing it for its "vast wealth of architectural jewels," and its overall "landmark worthiness" ("About Us," *Crown Heights North Association* website). During the 1970s, when historic district designation was first on the rise in New York City, the LPC surveyed many neighborhoods across the city, and it designated ten in Brooklyn including Park Slope, Fort Greene, Carroll Gardens, Boerum Hill, and Stuyvesant Heights. Crown Heights North was so large, however, that its size has been attributed as one reason it was not designated at that time.<sup>9</sup> Regulating an additional 1,800 buildings would have overwhelmed the small staff of the Preservation Department at the LPC. The survey and proposed designation report for Crown Heights North remained shelved in the Research Department of the LPC and in the Brooklyn Historical Society library for over twenty years, until the group that became CHNA revived it.

---

<sup>9</sup> This point was mentioned informally in a discussion with CHNA members.

The Crown Heights North draft designation report became a central rallying point for Green and Simpson as they attracted more residents to join their group. These included lawyer, Ms. Thomas; architectural historian, Ms. Morris; Ms. Lower, Ms. Barama, and Ms. Sinclair. They formed the Crown Heights North Association, a 501(c)(3), in 2002. As many of the founding members were already active in other community affairs, CHNA obtained support from many local elected officials, including City Council members Al Vann and Letitia James, Congresswoman Yvette Clarke, Assemblyman Karim Camara, and Borough President Marty Markowitz. Community Board 8 (which covers Crown Heights North and Prospect Heights), and other local civic organizations also supported designation.

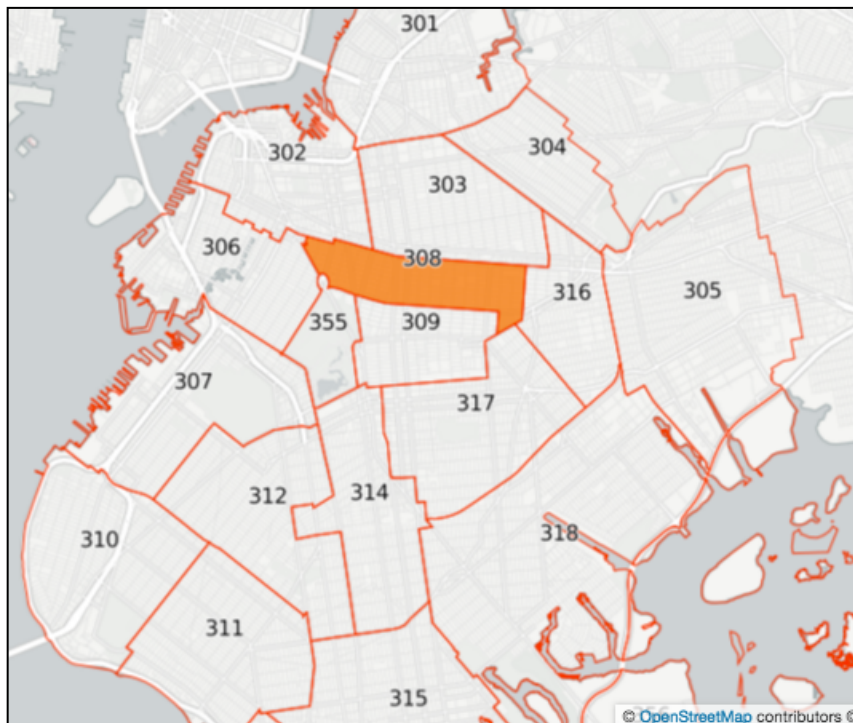


Image 14: Map of Brooklyn's Community Boards, with CB 8 highlighted in orange. (Data Source: CartoDB basemap, BYTES of the Big Apple CB boundaries, 2015).

Also, CHNA began to develop an important relationship with the Historic Districts Council (HDC), where one of the founders had previously worked (Hawkins, 2011). From the very beginning, HDC guided CHNA on navigating the intricate processes of obtaining historic district status, and it continues to provide instrumental support to their efforts.

With its foundation in place, the organization began its community outreach efforts. HDC helped CHNA realize how important community engagement would be for designation, as the LPC now requires majority support by the community before approving a new historic district (Chernaya, 2013). Since many of CHNA's early members were already involved in other community affairs (e.g. many are Community Board 8 members; one is Vice Chair of the CB 8 Housing Committee), and some were long-time residents whose families had been in Crown Heights for decades, CHNA was able to gain the attention of several residents across the neighborhood.

They soon came up against the task of convincing other long-term residents that landmarking would be beneficial for them and was not "just another step in the gentrification process, according to interviews with CHNA members" (Chernaya, 2013). One of their greatest initial challenges was getting a critical mass of residents on board to believe this. In 2004, when CHNA held its first public meeting at St. Gregory's Church at the corner of St. John's Place and Brooklyn Avenue, which became the organization's headquarters, over 250 residents came (*Historic Districts Council* website, 2010). CHNA began to hold bi-monthly meetings at St. Gregory's, featuring topics that went beyond

historic preservation, including predatory lending, energy conservation, solar powering, sanitation, safety, and taxes. As CHNA explicitly made “community a part of what they were hoping to achieve,” the group’s presence and political viability grew (*Historic Districts Council* website, 2010).

CHNA and HDC worked together to develop a plan for designation. Corresponding to the 1978 report, they mapped out four adjacent sections of the neighborhood, each of which has a distinguishable history, to pursue one at a time. They also decided to pursue designation at local, state, and national levels, for their different benefits. State and national recognition provide homeowners the opportunity to obtain tax credits for renovation work, and “add validity to the importance of the site” when it comes to local designation (Chernaya, 2013). Local designation, on the other hand, has teeth. All changes to buildings in locally-designated historic districts in New York City go through a review process by the LPC to ensure the proposed work is compatible with the character of the building, block, and district, and certain major changes such as demolition or additions that would significantly alter the scale of the existing or original building are typically not allowed.

To carry out some of the preparatory work, they hired Gregory Dietrich Preservation Consulting with funds they secured from the (1) Preserve New York Grant Program of the Preservation League of New York State; and the (2) Robert A. and Elizabeth R. Jeffe New York City Preservation Fund of the National Trust for Historic Preservation. (“National Register,” *Crown Heights North Association* website). “Phase I” was

designated by the LPC in 2007, and “Phase II” was “calendared” in 2008. (Calendaring refers to when the LPC officially initiates the designation process for an area, though the process can take years). After Phase II was designated in 2011, “Phase III” was calendared in 2012. In 2014, Phases I & II were successfully listed on the State and National Registers of Historic Places. Phase III was then designated by the LPC in 2015. Over the course of their work, CHNA members have received multiple awards from Preservation non-profits in New York City and the organization has been mentioned in multiple articles in the *Wall Street Journal* and the *New York Times*, among many other local papers, both printed and online.

A timeline of some of CHNA's main achievements and recognitions follows:

- 2001: First informal meetings on stoops of St. John’s Place
- 2002: CHNA incorporated as a 501(c)(3)
- 2002-2004: Historic district designation planning with HDC
- 2004: Held first community-wide meeting at St. Gregory’s Church
- 2007: Crown Heights North Historic District designated by the LPC
- 2007: CHNA receives HDC’s Grassroots Preservation Award
- 2008: CHNA receives Neighborhood Preservation Alliance’s Neighborhood Preservation Award
- 2008: Phase II calendared by the LPC
- 2011: Crown Heights North Historic District Phase II designated by the LPC
- 2011: Phase III calendared by the LPC

- 2014: Phase I & Phase II receive State and National Register listings
- 2015: Crown Heights North Historic District Phase III designated by the LPC
- 2015: Ms. Morris of CHNA receives HDC's Grassroots Preservation Award

In short, the LPC report from 1978 provided the ideal foundation for CHNA's campaign, validating their certainty that the neighborhood should be designated. The momentum built over the ensuing decade, however, is nothing short of astounding. A related line of inquiry would be to investigate the precise impacts CHNA's work had in nearby communities. There are hints of a "domino effect," since three nearby neighborhoods also secured designations shortly after 2007, following a ten-year period without any in Brooklyn.

The next sections document what was learned through fieldwork research in Crown Heights North over an eight-month period in 2014, structured around three themes: Designations, Affordability, and Community Input & Control.

Designations:

Since the third historic district (Phase III) was calendared by the LPC in 2012, by mid-2014, finishing its designation was one of CHNA's main priorities. Securing the designation was really just a matter of time, but members and residents were eager to see it through.

Toward this goal, it was deemed important to develop a relationship with the newly-appointed Chair of the LPC, Meenakshi Srinivasan. For its entire lifespan until this point, CHNA had worked closely with Chairman Robert Tierney, who served for all three terms of the Bloomberg Administration (2002-2014). Thus, the first task was to write a letter to the new Chair, congratulating Srinivasan on her appointment, and introducing her to the work that CHNA and the LPC had achieved over the course of the last decade. CHNA also conveyed that members were looking forward to working with her too. A simple move, the letter to the new LPC Chair was an early glimpse of CHNA's motivation to complete Phase III and of their savvy in navigating the preservation processes.

The second task having to do with designations was to finalize the listing of Phase III on HDC's "Deserved but not Designated" webpage. This is a series that HDC launched in 2011 to showcase several areas working toward designation. It provides photographs and short essays about each area. Testament to the long relationship between HDC and CHNA, Phase II was included its first installment in 2011.

When HDC notified CHNA in early Fall of 2014 that they would like to include Phase III in their next edition, unsurprisingly, its Board members responded enthusiastically. Having received a draft essay on Phase III, several board members commented and contributed edits to it. Characteristic of CHNA's gusto, the main edit requested was to include a sentence or two about, not only completing the designation of Phase III, but



also beginning the designation of Phase IV. HDC took the suggestion, and so the essay, posted in early October, 2014 concludes with the following statements.

HDC and the CHNA will also begin pushing for the fourth phase of designation.

It is incredibly important that we preserve the whole neighborhood and individual buildings from demolition and inappropriate alteration so that they can continue to bring life and enjoyment to the many individuals who make their homes and businesses here (“Deserving but not Designated,” *HDC* website, 2014).

Gaining publicity for Phase III through the “Deserving but not Designated” series was the first of two initiatives with HDC during 2014 that may have contributed to the designation in early 2015. The other was to become included among HDC’s “Six to Celebrate,” a yearly program that provides assistance to six communities with preservation goals. For this program, community groups must apply to receive HDC’s assistance, with applications due each December.

After discussing Six to Celebrate with the community at their Holiday Party on December 17, 2014, Board members worked together on the application, sending 27 emails to one and other over Christmas and New Year's Eve. The main question that arose early on in these conversations was whether they were attempting to nominate Phase III or Phase IV. Phase III was already calendared, so securing the designation would represent a clear-cut goal for HDC, but gaining recognition for Phase IV was also becoming more important to the CHNA. Ultimately, they decided to request assistance

both in finalizing Phase III and calendaring Phase IV. Since the application required maps of the proposed areas, they used the Phase III map from the calendaring report, and the Phase IV boundaries from the 1978 proposed designation report.

On New Year's Eve, the President sent the final document to HDC (included as Appendix 3), and one month later, HDC announced that Crown Heights North, Phase III and IV, was among the winners. The blurb posted online read:

The neighborhood has two historic districts, but despite the community's best efforts, efforts to broaden the neighborhood's protected areas have currently stalled. Over the next year, the Crown Heights North Association (CHNA) will focus on reviving their preservation campaign, as well as ensuring that this beautiful neighborhood will continue to have strong advocates for years to come (HDC's Six to Celebrate, *HDC* website, March 24, 2015).

The precise impact of this publicity on LPC decision-making is not known, but on March 24, the LPC voted unanimously in support of designated Phase III. Chair Srinivasan said, "I'm very excited about this," applauding the area's "cohesive collection" of handsome homes and its "very rich social and political history" (Smith, 2015). With Phase III complete, HDC updated its Six to Celebrate blurb to focus on Phase IV. The amendment read:

Update: The neighborhood now has three historic districts. Crown Heights North III was designated on March 24, 2015!!! There is one more phase to be designated so the good fight continues (HDC's Six to Celebrate, *HDC* website, March 24, 2015).

#### Phase IV & the Rezoning of Crown Heights West:

When CHNA began working toward the designations back in 2002, it viewed Phase IV as perhaps the most difficult to achieve – having to do with its proximity to portions of the neighborhood considered to be comparatively degraded.

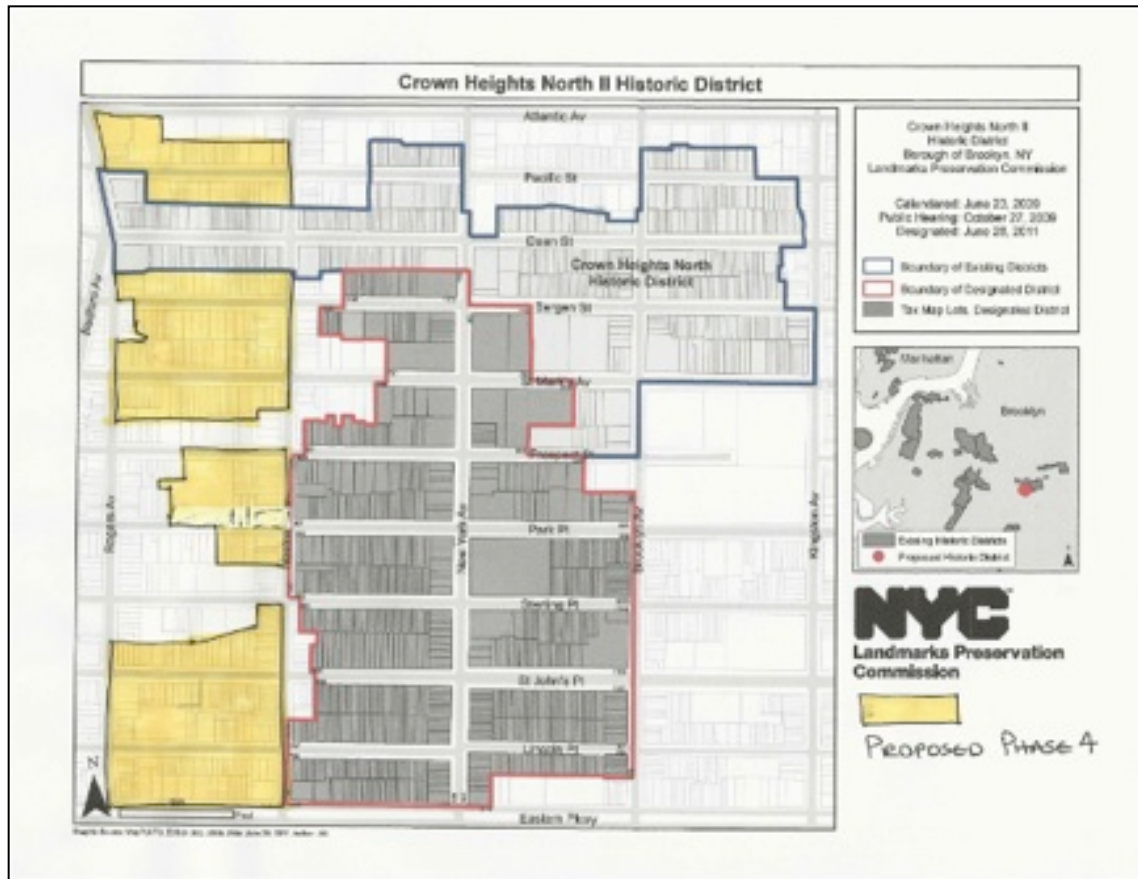


Image 15: Board member's sketch of Phase IV when working on Six to Celebrate application (Image Source: Morris, 2015).

Because CHNA and CB 8 knew this designation would take years, in the early 2010s, they began to work together on an alternative: rezoning an area that contains Phase IV to achieve some of the same protection that designation affords, for an even larger area than what was believed to be eligible for historic district designation. The map below shows the outline of Phase IV within the general area proposed for rezoning—55 blocks between Crown Heights North and Prospect Heights.

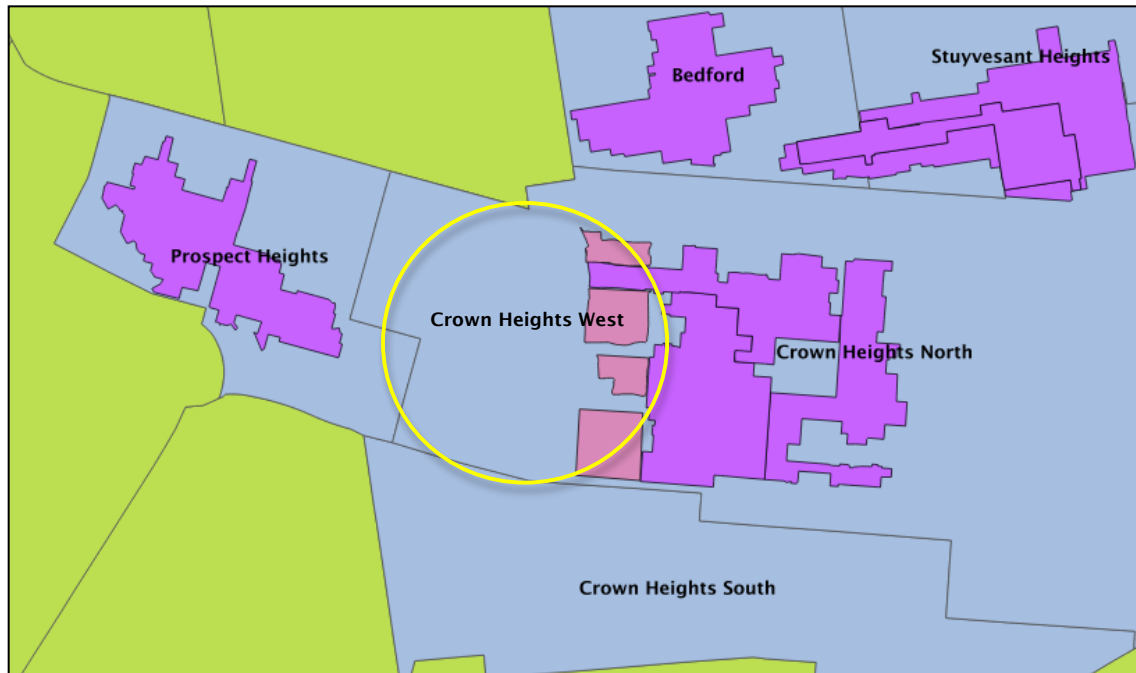


Image 16: Crown Heights West encircled in yellow. The boundaries of Phase IV were outlined in Google Earth according to Board member's sketch, and are displayed in pink (Data Source: Bytes of the Big Apple, Open Data portal, Google Earth; 2015).

The purpose of the rezoning was to slow the development of "tall, multi-story apartment buildings" that were inconsistent with the smaller properties of the neighborhood (*Crown Heights West Rezoning Study*, Department of City Planning, 2013).

In its final form, the zoning amendment introduced height restrictions on new development, adjusted commercial zoning to reflect the retail character of the area, and introduced an Inclusionary Housing area to incentivize the provision of affordable units in the new developments, which were predominantly market-rate or luxury (*Crown Heights West Rezoning Approved*, DCP, 2013).

While zoning legislation can be written with explicitly social goals, preservation regulations cannot. This is partially because the Landmarks Commission is legally bound not to take into account any consideration of use when making its decisions, and the culture of Historic Preservation in New York City has developed around this condition. According to CHNA Board members, however, the implicit effects of designation can be even stronger than the stated purposes of zoning. In the words of a Board member, since designation for Phase IV seemed unlikely at the time, rezoning the larger area represented a “stop-gap measure for expansion of historic district” (Thomas, August 29, 2014).

The preceding discussion demonstrates that CHNA views designation as having the capacity to protect the existing community from development pressures moving eastward, which appears to at least partially account for their dedication to the task. The following sections explore some of the concrete mechanisms that were available to CHNA in their pursuit of this overall aim.

#### Affordability:

Because CHNA was interested in seeing designation benefit the existing community members, the organization also paid attention to the potential tension between historic preservation and affordability, and focused on ways to integrate the two. One example is reflected in CHNA's efforts to provide residents with the opportunity to obtain tax credits to renovate their properties, a benefit that comes from being listed on the State

and National Registers of Historic Places. This is a completely separate process from local designation.

Local landmark status does not lead to any direct financial assistance for owners seeking to repair or renovate their home, which can disappoint owners of landmarked buildings who would like to undertake preservation work but do not have the means to do so. The LPC has a small grants program, but only for non-profits. The Landmarks Conservancy, however, another city-wide preservation agency, can provide individual owners with loans and free technical guidance through its Historic Properties Fund; yet, this program appears to be relatively underused. As of 2014, only 221 Historic Properties Fund projects had been completed across the city.



Image 17: HPF completed projects as of 2014. (Data Source: Landmarks Conservancy, BYTES of the Big Apple, 2014).

New York State, however, does have a system to provide financial assistance to homeowners of buildings listed on the State and National Registers of Historic Places. The NYS Homeownership Rehabilitation Credit applies specifically to “distressed census tracts” (“Tax Credit Programs,” *NYS Parks, Recreation & Historic Preservation* website). As of the 2010 Census, Crown Heights North census tracts still qualified as distressed.



Homeowners of buildings located in a distressed census tract and listed on the State and National Registers can apply for a 20% tax credit for almost any renovation that costs between \$5,000 and \$1,000,000—interior or exterior. The work does not have to be historically restorative. It can be installing a new roof, renovating a rental unit, or repairing an existing, modern rear deck. The only other stipulation, aside from the minimum cost being \$5,000, is that 5% of the cost of the work must be on the exterior. For example, an owner who applies mainly to renovate a tenant's unit, which costs her \$4,800, would also have to spend \$200 on some exterior work, like scraping and repainting the window trim on the front façade. If the homeowner's income is less than \$60,000, rather than a tax credit, the owner would simply get a refund of \$1,000 for a \$5,000 project ("Tax Credit Programs," *NYS Parks, Recreation & Historic Preservation* website).

The Homeownership credit is also underutilized. Many buildings listed on the State and National Registers may not be located in distressed census tracts. Communities and individuals residing in tracts that do qualify as distressed may not have the resources to become listed on these Registers, as the application process is quite involved, requiring time and money. Finally, many homeowners who do qualify for the credit don't know about it, or perhaps are intimidated by the paperwork they need to complete to apply.

The New York State tax credit seems to be CHNA's primary motivation for listing the areas on the State and National Registers because local designation was already complete and these recognitions are otherwise honorific. Hence, CHNA applied for a grant to hire

Gregory Dietrich Consulting to prepare the application, a document that ended up being 273-pages. Phases I and II were successfully listed in early 2014. (See Appendix 4 for a portion of the report).

On April 16, 2014, CHNA's annual Town Hall meeting focused on educating members about the New York State tax credit, inviting speakers from several preservation agencies in New York City and State. At least 60 long-term residents attended. The SHPO's presentation about the tax credit application process seemed to be useful to the audience, and the information about it remains on CHNA's website.

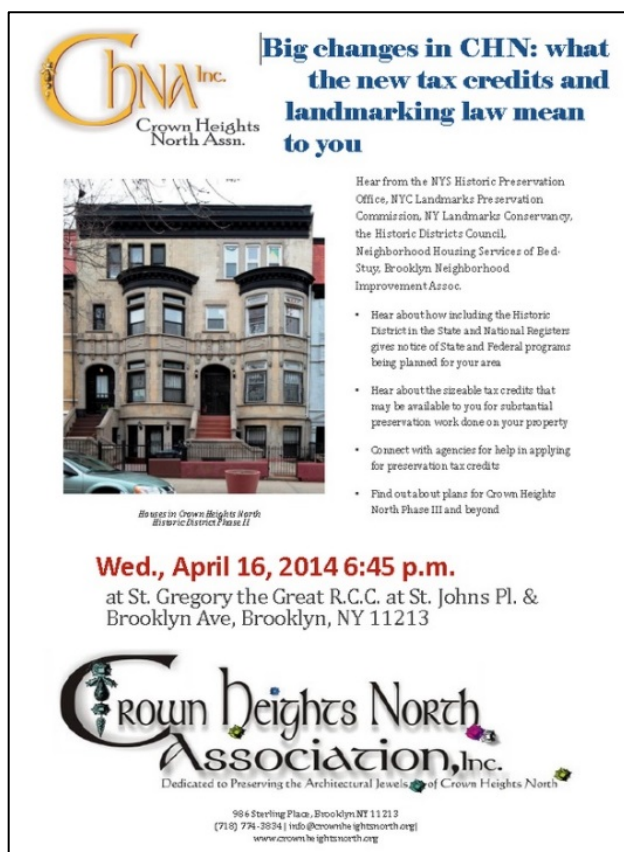


Image 18: Flyer for CHNA's annual Town Hall meeting, April 16, 2014 (Image Source: CHNA website, 2014).

Furthermore, CHNA took advantage of volunteer support to assist residents in filling out tax credit applications. At their annual House Tour in October 2014, the organization set up a booth for residents to get one-on-one help with the forms. It also made announcements about the credits at every bi-monthly meeting and the annual Holiday Party, extending to residents seeking assistance the contact information of volunteers. Now CHNA is working on listing Phase III on the State and National Registers, so that the tax benefits can be extended to that section of the neighborhood as well.

This section has provided one concrete example of how CHNA is trying to integrate historic preservation, affordability, and the economic well-being of the existing community members. Renovating may pave the way toward renting a unit, which can generate substantial income now that the area is very desirable, and any sort of upgrading is likely to increase the value of homes, if and when residents do eventually sell. Even if the tax credits remain underutilized, their efforts in helping residents take advantage of them illustrate their broader visions for designation.

#### Community Input and Control:

The story of Phase IV and the Crown Heights West rezoning demonstrate other tangible effects of introducing land use and building regulations, which may protect an existing community. If rapid development is occurring nearby, its pace is slowed within the historic district boundaries by virtue of lengthy review processes and regulations that typically drive down size. Moreover, the voice and perspective of local Preservation

communities influence decision-making at Landmarks Preservation Commission public hearings. Residents, community organizations, and the encompassing Community Board provide testimony at LPC public hearings, and it is politically difficult for the LPC not to take this testimony very seriously, out of concern and respect for those immediately affected by proposed projects.

Thus, while on October 20, 2014, at a panel discussion, Sharon Zukin, sociologist, said “Historic preservation protects the bricks and mortar,” CHNA’s work shows that this statement is a narrow understanding of the effects of historic district designation. The following section provides two examples to exemplify this.

658 Nostrand Avenue:

658 Nostrand Avenue represents the very first proposal for a new building on an empty lot in Crown Heights North since designation. The proposal came to CHNA’s attention on August 6, 2014 through its website, in an email from a resident. With the subject, “Building heights on Nostrand,” the email read:

Dear CHNA,

Are you aware that 658 Nostrand is applying for a building permit to go 6 stories on this empty lot; far above the neighboring buildings on this stretch of Nostrand between Fulton and Eastern Parkway? Seems very out of character and this would not have occurred in Park Slope so why here? Is there something you can

do the restrict this? Everyone will want to do this after wards [sic]. There is an article in Brownstoner.com about it.

<http://www.brownstoner.com/blog/2014/08/six-story-10-unit-building-planned-for-nostrand-avenue-in-crown-heights/>

See more at:

[http://www.brooklynian.com/discussion/comment/551220#Comment\\_551220](http://www.brooklynian.com/discussion/comment/551220#Comment_551220)

Thanks, I appreciate your help with this,

Don Doe, 1057 Bergen (Simpson, August 6, 2014).

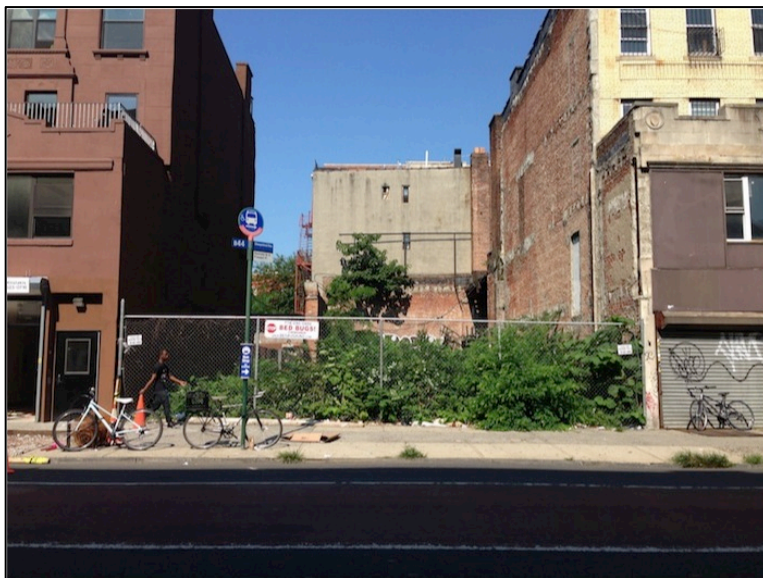


Image 19: 658 Nostrand Avenue empty lot (Image Source: Brownstoner, August, 2014).

After circulating the email, CHNA Board members immediately began to build a case in opposition, focusing on the proposed building's height and bulk. Even though the lot is actually outside the designated areas (it is in Phase IV), CHNA still wanted to "go on record as opposing a 6 story structure." In letters to the developer himself, Urban View, and their elected officials, CHNA made the point that if Phase IV were already

designated or even just calendared, the height of the building would have to be reduced, either to the height of the building that historically stood there (3 stories), or the height of the adjacent buildings (four stories), and that they were working toward this currently. As the story of the Crown Heights West rezoning began to reveal, new, “tall” apartment buildings in this area (tall meaning 6 stories or more) are not considered friendly to the existing communities in these areas, probably because the units are not affordable to people earning the area’s median income or below (Corcoran, 2013) If a six-story, luxury apartment building were built on this block of Nostrand Avenue (typical of Urban View’s previous projects), it would be a striking symbol of change on the historic commercial thoroughfare.

Quelling CHNA’s concerns, on September 22, the organization received information that the development planned for 658 Nostrand "failed a hydro flow test" and would not proceed (Thomas, September 18, 2014). The lot is still vacant today, with no new plans filed for construction. 658 Nostrand Avenue, located in Phase IV and across the street from Phase II, may be a difficult site to develop in a way that works for everyone affected.

913 St. Marks:

913 St. Marks represents the very first proposed rear yard and rooftop additions in Crown Heights North since designation, and its story demonstrates that the procedural aspects of historic district preservation drive down the size, profitability, and social impact of new

development. On November 30, Community Board 8 publicized the agenda for the Housing Committee meeting on December 4, which included a proposal for a two story rooftop addition and a six story rear yard addition at 913 St. Marks located in Phase I. CHNA Board members immediately began emailing each other, building up its case against the proposal.

As indicated in the LPC designation report, 913 St. Marks is a “no-style” building, constructed in 2006:

913 St. Mark’s Avenue: No-style building, constructed c.2006; brick façade; four stories; four bays, including a full-height, three-window-wide, angled projecting bay; soldier-course brick lintel courses; cast-stone sills and keystones. Site Features: Concrete parking pad (Landmarks Preservation Commission, 2007).



Image 20: Front facade of 913 St. Marks Place, “no-style” building constructed in 2006 (Image Source: Hershkowitz Architects LPC Preservation, August, 22, 2014).

That this “no-style” building came to matter as much as it did to CHNA in itself begins to convey what preservation meant to the community—with 913 St. Marks, they were attempting to save something, but it would not have been the architecture.





Image 21: "Tax Photo" from ca. 1939 of 913 St. Marks Place within its row. (Image Source: Hershkowitz Architects LPC Preservation, August, 22, 2014).

To prepare for the Community Board's Housing Committee meeting, where CHNA would first express their thoughts on the proposal to residents and representatives from the project-owner, developer, or architect, the Board members wrote to each other. One summarized the proposed work concisely, "Basically, they want to add another half a building, and blow it out so they can have two apartments per floor, doubling the occupancy of the structure" (Morris, December 1, 2014).

CHNA was also concerned that the addition would set a precedent for building-out other houses in the historic district, which, in the words of another member of the Board, would "prove to developers' delight for this area" (Thomas, November 30, 2014).

Because the LPC is more likely to approve rear yard additions if buildings in the same row have them already, CHNA studied the existing conditions around 913. The following map was sent around to show that seven of the fourteen buildings in 913's row have rear additions, but that most of the buildings on the opposite side of the courtyard do not. In an email entitled, "Using Math to Win," a Board member recommended "an argument that combines both sides of the block," to make buildings with rear extensions the minority (Thomas, December 4, 2014). The map below illustrates this.



Image 22: Map of building footprints in rear extension study; red asterix indicating 913 St. Marks (Thomas, December 4, 2014).

If the conditions are not pristine to begin with, new additions are then likely to impinge on the 'light and air' of existing ones. When neighbors raise this concern at LPC hearings, the LPC has tended to say that 'light and air' are not technically within its purview, but also that new additions should not exceed the depth and height of existing

ones. Board members considered the intricacies of this situation, examining the rear of the building and the existing extensions adjacent to it.



Image 23: Rear of 913 St. Marks, with partial views of adjacent buildings' rear extensions. (Image Source: Hershkowitz Architects LPC Preservation, August, 22, 2014).

In one Board member's opinion:

I think the [proposed] extension is way too big. Even though it would match the houses around it, it does so in an aggressive and intrusive way that will totally obliterate whatever light 865 has in its extension. The houses in this group did have large extensions, but they did not go up 5 stories, only three. I would not have a problem with a smaller extension, one that does not go up the entire height of the building (Morris, December 1, 2014).

Another comment by a Board member remarked on light and air.

The Commission will pay attention to CHNA's not supporting the height of the extension for 913 St Marks but will dismiss complaints about impinging on the

neighbor's light and air, as not being within LPC's purview (Thomas, December 3, 2014).

When it came time to submit their letter to the Community Board and the LPC, the President of CHNA sent out a draft, explaining:

I opted to leave in the part about the extension impinging on neighbors' light and air. My position is if the LPC dismisses it so be it. We have said it is a concern and possibly down the road if it is written as a concern often enough of us by those who are affected and care, maybe it will eventually impact this position. You never know (Simpson, December 3, 2014).

After the passage above, she added:

On another note, I grew up knowing St. Marks as Place not Avenue. On the map I viewed it is listed as Avenue for a significant portion. Which it is? (Simpson, December 4, 2014).

To which, another Board member, who was usually quiet, responded:

When I came to the US in 1962 I lived on St Marks Place in a building owned by my step-mom. It's St Marks Place (Sinclair, December 4, 2014).

CHNA incorporated all these thoughts into the letter it submitted to the Community Board and the LPC, included as Appendix 5.

After a passionate community meeting on December 4, at which CHNA and neighbors convened and expressed their concerns about the proposed additions, the architect decided to pull the proposal from the December 9 LPC Public Hearing. Two months later, on February 3, 2015, 913 St. Marks was presented to the LPC. It was rejected, and came back twice more before it was approved on June 9, 2015. The final proposal is significantly smaller than what was proposed—the rear addition rises only through the third, not the sixth, floor.

Returning to the premise of this section, the stories of 658 Nostrand Avenue and 913 St. Marks Place show that historic preservation in action is about much more than “bricks and mortar.” These regulations and processes add social dimensions of great consequence to a practice perceived to relate only to the built environment. As in the two examples provided here, when a developer proposes to build in a way that significantly alters the original building, especially its scale, this is viewed as inconsiderate to the existing community, and tangible routes for protest become available by virtue of historic designation. CHNA appears to be tapping into some of the underlying premises of preservation regulation, and helping to define its potential *social and communal* benefits, in the context of 21<sup>st</sup> century Brooklyn.

Conclusion:

Crown Heights North provides an important case study for the new wave of historic districts in Brooklyn, representing the first of the new districts in Brooklyn after a ten-

year hiatus, and an unusual multi-phased plan to designate four different sections of the neighborhood. CHNA has secured three local historic districts, with two of them on the State and National Register, and it hopes to see all four phases designated at all three levels in the coming years. It has also made a name for itself in New York City, having won numerous awards, and been mentioned in the *Wall Street Journal*, the *New York Times*, and many local papers. CHNA has become a model for local, grassroots Preservation organizations, according to experts in the Preservation field in New York.

Perhaps more subtle than these accomplishments, though, the organization is also defining key *uses* for designation, which are social and communal in nature. These shed light on *why* the organization worked so hard for the designations. They also demonstrate that communities in the newly-designated areas are aiming to preserve their social fabric through policies nominally directed at the built environment alone.

Since the census tracts of Crown Heights North are still considered economically distressed, getting the districts listed on the State and National Registers, and educating homeowners about the tax credits, enables residents to receive a 20% tax credit for any renovation work. Since many long-term homeowners may not have a lot of discretionary income for renovations, this money back may be meaningful, perhaps allowing them to update a tenant's unit, for example.

Historic preservation law in New York City also provides pathways for influential community input in designated areas' development. The LPC requires Community

Board testimony on proposed projects at their public hearings, and while it is not binding, it is taken very seriously out of respect for the people directly affected by the work.

CHNA has become the voice of Community Board 8 for any project in the area's historic districts, and it works very hard to prepare accurate and cogent letters, drawing from the expertise of an architectural historian on its Board (who moved upstate when her rent rose too high), its lawyer, and the HDC.

As demonstrated by the stories of 658 Nostrand Avenue and 913 St. Marks Place, Preservation regulations are in sync with CHNA's wishes for the neighborhood to retain its low-rise, historic scale, and they provide CHNA with a legal framework to advocate for them. CHNA has showed that though the LPC rules pertain only to architecture, the values underlying them can be directly supportive of the existing community. Through their actions, CHNA appears to be channeling the processes and rules of Preservation in such a way as to deter pure profit-seeking developers, and capture the interest of residents who care about the neighborhood's broader amenities. In these senses, the social and community-oriented utility of this age-old land use tool comes to light.

## CHAPTER 3:

### INTER-RELATED REALITIES VIA OPEN DATA AND CIVIC TECH

#### Introduction:

This chapter uses Open data and Civic technology to provide another perspective on the new wave of designations—namely, to balance the preceding discussions of the community-oriented ideals and goals of 21<sup>st</sup> century Preservation with some of the other changes taking place across the borough, which may place limits on them. The boundaries around historic districts are meaningful, but they are not walls, and other market-driven phenomena will influence development within them over time. Three such phenomena were identified during fieldwork as particularly important and timely: changes in the rent-stabilized housing stock, the sale of property (i.e. property turnover), and the growing presence of LLCs as owners of real estate. Access to the data, software, and techniques needed to analyze these trends required the use and understanding of Open data and Civic technology.

Open data and Civic tech comprise a movement that, at its core, is about leveraging developments in information technology for the public good (Gilman, 2015). It revolutionizes the ability to understand the environments around us, and this greatly affects future scholarly research. Open data refers to a wealth of data used by government that now must be posted online in machine-readable format, or made available to the public when requested. At its ethical core, opening up these datasets is meant to improve the efficiency, transparency, and accountability of government, while



providing citizens with the right and opportunity to become more informed and knowledgeable as they pursue their own goals (U.S. Open Data Action Plan, 2014). Civic technology is a continually developing concept, but is broadly defined as technology that “spurs citizen engagement, improves communities and makes governments more effective” (Howard, 2015).

An integral component of Civic tech is free and open source software (F/OSS). “Free” has two meanings: first, the source code is free and open, so technologists anywhere can contribute to the software’s development; second, these software are provided free of cost to the public (Coleman, 2012). Other examples of Civic tech include data visualizations, interactive maps, websites, and apps that aim to help and empower citizens and communities. Furthermore, for this study, the techniques needed to analyze the newly available “deluge” of data are also considered to be dimensions of Civic tech. (Bishop, 2016; Miller & Goodchild, 2015). Open data and Civic tech go hand-in-hand since they are often used together, and they share an ethical standpoint about using developments in information technology for the public good.

The analyses put forth in this chapter, concerning rent-stabilization, property sales, and LLCs as owners of real estate, were made possible by recent developments in Open data and Civic tech. For this reason, the workflows are described. While the results of this study round out an understanding of the ideals of 21<sup>st</sup> century Preservation with other concurrent realities taking place, the discussion of Open data and Civic tech methods is meant to provide more context for how these developments affect academic research.

## Open Data:

Within New York City's Open data portal, PLUTO ((Primary Land Use Tax Output) is the cornerstone. This is parcel-level data containing eighty-three fields of information per parcel, such as Address, Owner Name, Number of Buildings, Number of Floors, Number of Units, Lot Area, Zoning, Floor Area Ratio, and the ten-digit unique identifier for each parcel comprised of Borough, Block and Lot codes (BBL). (Block and Lot systems originated in the U.S. in the nineteenth century to help identify tracts of farmland when cities and suburbs began to expand into rural areas). A list of all eighty-three fields in PLUTO is included as Appendix 6. In 2015, there were 859,464 parcels across the city. PLUTO is updated twice yearly, and due to its large size, is packaged by borough.

PLUTO data only became free for the public to download in December, 2013, after the passage of Local Law 11 by the New York City Council in 2012, which required all city agencies to "open" their data by 2018, meaning, post it online and make it free to download. Prior to that point, the City Planning Department charged hundreds of dollars to release PLUTO data--even to other government agencies. In a detailed blog about this story, Steve Romalewski notes that, in 2000, the fee for the public was \$1,150 per borough, and \$750 for government agencies; just before it became free in 2013, the price for PLUTO data had been reduced to \$300 per borough. In between 2000 and 2010, City Planning had collected approximately \$800,000 from these sales (Romalewski, 2013a). When City Planning opened PLUTO in 2013, it also released historical PLUTO data for every year going back to 2002--an auspicious surprise to the Open data community

(Romalewski, 2013b). Today, there are nineteen versions of the data posted on a City Planning webpage called, "BYTES of the BIG APPLE"--one per year from 2002 through 2007, two per year from 2009 through 2014, and one so far for 2015.

In GIS, a tiny portion of Brooklyn's PLUTO, with Grand Army Plaza at the lower left, looks like this:



Image 24: PLUTO data opened in QGIS; looking at the Prospect Heights neighborhood (Data Source: BYTES of the Big Apple, 2016).

Boundary data:

Defined by the Department of City Planning to approximate NYC's neighborhoods, and following Census tract lines in order to facilitate population counts, spatial data of Neighborhood Tabulation Areas (NTAs) are available for download on the BYTES of the Big Apple webpage. The NTA dataset contains 195 neighborhoods across the city (51 in Brooklyn), and there are eight fields of information. The unique identifier for each NTA is a three-digit code, NTA Code.

The Landmarks Preservation Commission creates spatial data for the historic districts, available for download in the Open Data portal. In the most recently updated version from November 9, 2015, there are 234 potential historic districts with sixteen fields of information. The unique identifier for each historic district is the “LP Number,” an eight-character code.

A map of Brooklyn, with its 51 NTAs in grey, the 15 NTAs that contain historic districts in blue, and the historic districts in orange, follows.

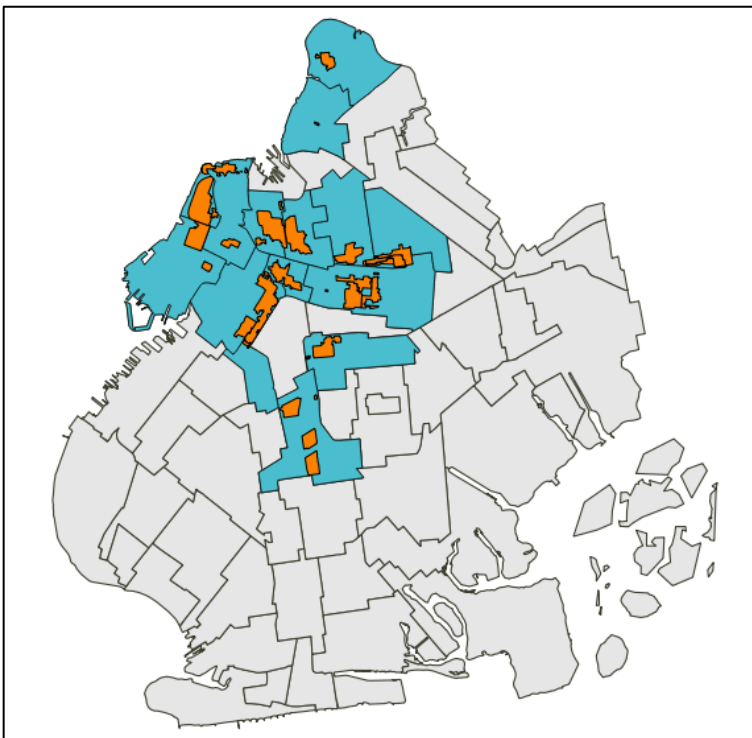


Image 25: Map of Brooklyn with its NTAs in grey, the NTAs that contain historic districts in blue, and the historic district polygons in orange (Data Source: BYTES of the Big Apple, NYC Open data portal, 2016).

PLUTO does *not* have a field for the neighborhood or NTA that the parcel is in, though it does have a field called "HistDist" which is supposed to contain accurate information about whether each parcel is in a Historic District, and if so, which one. Unfortunately,

the information in the “HistDist” field in PLUTO is not always accurate. This could be due to using an outdated historic district shapefile, a problem with the algorithm used to determine whether the parcel is inside or outside of a historic district, or other “human error.”

To generate accurate information about each parcel’s actual NTA and historic district, PLUTO was joined to the NTA shapefile and the up-to-date historic district shapefile in PostGIS, a powerful free and open source spatial database.<sup>10</sup> Illustrating the match achieved with this method, the image below shows PLUTO's parcels in the Fort Greene, Clinton Hill, and BAM Historic Districts in downtown Brooklyn; the parcels in blue follow the red boundaries exactly, even in the most intricate corners.



Image 26: Historic district boundaries in red, with parcels that fall inside of them highlighted in blue (Data Source: BYTES, Open data portal, 2016).

Once each parcel has accurate information appended to it about the neighborhood it is in, and whether it is in a historic district (and, if so, which one), there is a wealth of

---

<sup>10</sup> This work was conducted with Jeremy Baron, a full-time Brooklyn-based computer programmer, with fifteen years of experience.

information in PLUTO that can be analyzed along these lines. The following tables show selected descriptive statistics about three spatial groups—historic districts, the 15 NTAs, and the borough. Before these data and techniques became available, it was not readily feasible for an individual to freely ascertain so much precise and detailed information about such customized geographies in Brooklyn.

Table 5 is an exact count of the number of parcels, number of units, number of residential units, and percent of residential units in the three geographies in 2015:

Table 5: Parcels, Units, Residential Units, and % Residential Units (Data Source: BYTES, Open data portal, 2016)

<i>Geography</i>	<i>Count BBLs</i>	<i>Total Units</i>	<i>Residential Units</i>	<i>% Residential</i>
Borough	277,907	1,072,933	994,180	92.66%
15 NTAs	71,200	384,996	357,711	92.91%
HDs	13,803	59,211	56,203	94.92%

Table 6 identifies which Community Boards and Police Precincts contain designated historic districts, and which do not.

Table 6: Administrative boundaries: Community boards, and Police precincts (Data Source: BYTES, Open data portal, 2016)

<i>Community Boards with HDs</i>	<i>Community Boards without HDs</i>
1, 2, 3, 6, 7, 8, 9, 14	4, 5, 10, 11, 12, 13, 15, 16, 17, 18, 55, 56
<i>Police Precincts with HDs</i>	<i>Police Precincts without HDs</i>
70, 71, 72, 76, 77, 78, 79, 81, 84, 88, 90, 94	60, 61, 62, 63, 66, 67, 68, 69, 73, 75, 83

Tables 7 - 9 are summaries of the largest lots, number of floors, and number of units, in the 15 NTAs and historic districts.

Table 7: Size of largest lots (Data Source: BYTES, Open data portal, 2016)

<i>Range in Size of 10 largest lots:</i>	
15 NTAs	395,000 to 1,080,000 sq. feet; all ten of these lots are NYCHA-owned public housing projects
HDs	40,800 to 84,600 sq. feet; all ten are privately-owned except 1: a church, Our Lady of Victory, in Bedford Stuyvesant

Table 8: Greatest number of floors (Data Source: BYTES, Open data portal, 2016)

<i>Range in Number of Floors of 10 tallest buildings:</i>	
15 NTAs	37 to 53 floors; 2 are in HDs (built 1927 and 1928 respectively); the remaining 8 are constructed between 2005 and 2014.
HDs	15 to 41 floors

Table 9: Greatest number of units (Data Source: BYTES, Open data portal, 2016)

<i>Largest Number of Units:</i>		
15 NTAs	Largest #units in these NTAs that is not NYCHA: 1,022 units; built in 1950	Concord Village; 175 Adams Street, BK Heights
HDs	Largest # units in the HDs: 424 units; built in 1946	Clinton Hill Cooperative Apartments; 345 Clinton Avenue, Clinton Hill HD

These results confirm that the built environment of the historic districts is significantly more compact than that of the neighborhoods around them, in lot size, number of floors, and number of units.

Table 10 and 11 present information about the number of buildings constructed since 2000, using the Year Built field, and their number of floors.

Table 10: New construction since 2000 (Data Source: BYTES, Open data portal, 2016)

<i>Number of buildings constructed since 2000</i>	
15 NTAs	3,744
HDs	99

Table 11: Tallest new buildings' number of floors (Data Source: BYTES, Open data portal, 2016)

<i>Range in Number of Floors of 10 tallest buildings constructed since 2000</i>	
15 NTAs	36 - 53
HDs	5 - 12

In historic districts, new buildings' heights are usually capped so they remain consistent with typically low-rise streetscapes; the data confirms that the ten tallest new buildings in historic districts rise much lower than the ten tallest new buildings outside the districts. Continuing with information about date of construction, 28,051 buildings, known to be constructed between the years 1850 and 1931, exist outside the historic districts.<sup>11</sup> The image below shows a large number of contiguous historic buildings in North Bushwick—potentially an area for a new historic district?

---

<sup>11</sup> There is another field in PLUTO called "BuiltCode" which indicates an "E" if the year of construction is an *estimate* rather than *known*. All "E" parcels are omitted from the analyses (72% of the parcels), so the total is likely to be a major underestimate.



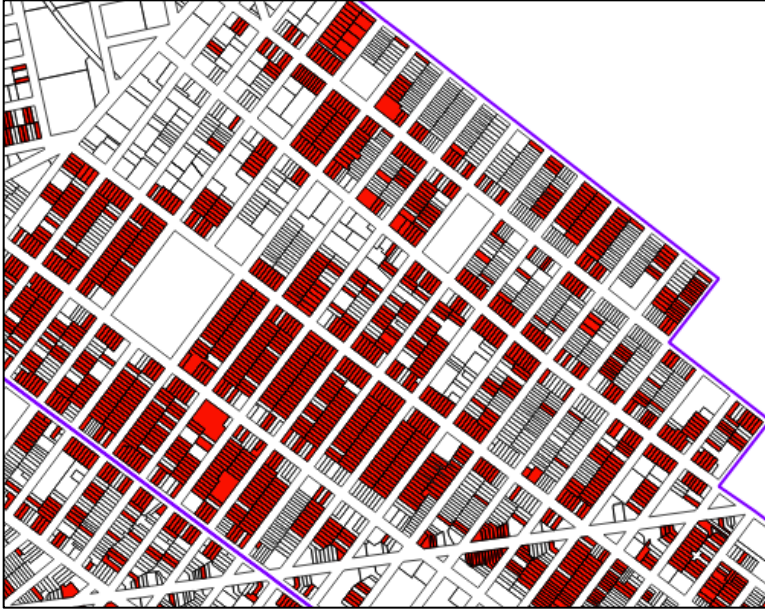


Image 27: North Bushwick historic buildings (Data Source: BYTES, Open data portal, 2016)

Finally, using a field for “Landmark,” Brooklyn’s individual landmarks are located inside and outside the historic districts.

Table 12: Individual landmarks in Brooklyn (Data Source: BYTES, Open data portal, 2016)

<i>Geography</i>	<i>Number of Individual Landmarks</i>
Borough	161
15 NTAs	96
HDs	12

These processes, using Open data and free and open source technology, paint a picture of the building stock in Brooklyn’s historic districts compared to their encompassing neighborhoods. The tables above make use of just a few of PLUTO’s eighty-three fields of information.

### Trapped Rent-Stabilization Data:

Rent-stabilization and rent-control are two types of rent-regulation in New York City that govern rent increases and prescribe rights and responsibilities to tenants and landlords.

Rent-stabilization today applies to a far larger share of units than rent-control: 96% compared to 4% (Furman Center, n.d.). The cost of rent for units that are stabilized can only rise a set percentage each year, determined annually by a State agency, the Rent Guidelines Board.

Rent-stabilization is said to be the “backbone of affordable housing” in Brooklyn, with stabilized units comprising approximately 44% of the borough’s total rental stock.<sup>12</sup> The long-term stabilized units in this supply, however, are being depleted as landlords find ways to get these units out of the system so they can charge the market-rate and not be limited by small allowable rent increases yearly. If a neighborhood suddenly becomes very desirable, rent-stabilization becomes an even greater burden to landlords. Prevalent attempts to ignore or violate the regulations throughout central Brooklyn have catalyzed a tenants’ movement, led by the Crown Heights Tenants Union, which aims to organize and educate renters about how to resist illegal “de-regulation.”

New rent-stabilized units do enter the system through tax breaks for developers, but they enter at a slower rate than they exit, and the new units are often more controversial. For

---

<sup>12</sup> At St. Ann & the Holy Trinity Church in Brooklyn Heights on June 24, 2014, four panelists came together for a public forum called "Brooklyn Housing Matters: Tackling Affordability." Quotation from panelist Councilman Stephen Levin, and figures from Caitlyn Brazil, VP of Strategic Partnerships for CAMBA, a multi-service Brooklyn non-profit.

example, in certain programs, like the 421-a Tax Incentive, the developer's tax abatement may expire after 10 or 15 years (depending on the location of the project), at which point the stabilized rents can return to the market-rate (Furman Center, n. d.). Another concern has been the provision of a separate entrance (a.k.a. a "poor door") for the affordable units within a mixed-income development, which became a symbol of prejudice against the lower-income residents (Navarro, 2014). Moreover, despite the astounding gap in demand for and supply of new rent-stabilized units (e.g. in a recent mixed-income project in NYC, there were 88,000 applications for 55 affordable units), sometimes, there have not been enough *local* residents meeting the income requirements to fill them, so they have remained vacant (Predergast, 2014). These potential problems with new rent-stabilized units seem to make it all the more important to help preserve the existing stock of the longer-term rent-stabilized apartments. Identifying, mapping, and analyzing the data on these buildings and units comprise the topic of the following sections.

The buildings data:

Lists of buildings that contain rent-stabilized units are available on the Rent Guidelines Board (RGB) website, as separate PDFs per borough. In mid-2016, the most current data is from 2014. Brooklyn's 2014 rent-stabilized building list is a 316 page PDF that looks like this:

Brooklyn Rent Stabilized Building List											
ZIP	BLDGN01	STREET1	STUSFX1	BLDGN02	STREET2	STUSFX2	CITY	STATUS1	STATUS2	STATUS3	BLOCK LOT
11201	131	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			291 45
11201	138	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A	ROOMING HOUSE		296 19
11201	141	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			291 40
11201	145	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			291 38
11201	147	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			291 37
11201	153	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING B	ROOMING HOUSE		291 34
11201	155	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			291 33
11201	174	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			297 15
11201	176	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			297 16
11201	177	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A	NON-EVICT COOP/COI		292 49
11201	181	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			292 47
11201	182	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			297 19
11201	184	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			297 19
11201	186	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			297 19
11201	188	AMITY	ST				BROOKLYN 61	MULTIPLE DWELLING A			297 19
11201	122	ASHLAND	PL				BROOKLYN 61	MULTIPLE DWELLING A	J-51	NON-EVICT COOP/C	2061 40
11201	85	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			274 16
11201	88	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			284 13
11201	90	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			284 15
11201	92	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			284 16
11201	93	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			274 13
11201	99	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			274 11
11201	148	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			285 23
11201	154	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			285 26
11201	224	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A	GARDEN COMPLEX		278 26
11201	284	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			181 22
11201	288	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			181 24
11201	307	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A	421-A		176 49
11201	120 TO 122	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			285 10
11201	164 TO 168	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			286 8
11201	182 TO 200	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A	421-A		286 17
11201	304 TO 306	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			182 7
11201	325 TO 327	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A			176 41
11201	94 TO 106	ATLANTIC	AVE				BROOKLYN 61	MULTIPLE DWELLING A	J-51		284 17
11201	96	BALTIC	ST				BROOKLYN 61	MULTIPLE DWELLING A	GARDEN COMPLEX		309 13
11201	98	BALTIC	ST				BROOKLYN 61	MULTIPLE DWELLING A	GARDEN COMPLEX		309 14
11201	102	BALTIC	ST				BROOKLYN 61	MULTIPLE DWELLING A			309 16
11201	108	BALTIC	ST				BROOKLYN 61	MULTIPLE DWELLING A			309 19
11201	110	BALTIC	ST				BROOKLYN 61	MULTIPLE DWELLING A			309 20
11201	151	BALTIC	ST				BROOKLYN 61	MULTIPLE DWELLING A			305 34
11201	159	BALTIC	ST				BROOKLYN 61	MULTIPLE DWELLING A			305 32
11201	203	BALTIC	ST				BROOKLYN 61	MULTIPLE DWELLING A			306 29
11201	311	BALTIC	ST				BROOKLYN 61	MULTIPLE DWELLING A	GARDEN COMPLEX		396 53
11201	319	BALTIC	ST				BROOKLYN 61	MULTIPLE DWELLING A			396 51

Source: 2014 DHCR Bldg. Registration File

<http://www.nycrbg.org/html/resources/zip.html>

Page 1 of 316

Source: 2014 DHCR Bldg. Registration File

<http://www.nycrgb.org/html/resources/zip.html>

Page 1 of 316

Image 28: RGB data in original form, a 316 page PDF document (Source: [http://www.nycrgb.org/downloads/resources/sta\\_bldngs/2014BrooklynBldgs.pdf](http://www.nycrgb.org/downloads/resources/sta_bldngs/2014BrooklynBldgs.pdf))

The document has two main problems.

- (1) PDFs “trap” their data (that is, it is difficult to use the data because it is not in spreadsheet form), and
- (2) The data in this PDF is simultaneously alphabetically and numerically organized, which, along with the length of the document, makes it difficult to find a specific building on the list.

*Tabula*, free and open source software (F/OSS) that was designed to convert tabular PDFs into spreadsheet form (based on the coordinates of the data itself), can be used to liberate the RGB data. *Tabula* opens in a web browser, as pictured below:

The screenshot displays the Tabula web application interface. The top navigation bar includes 'My Files', 'About', 'Help', and 'Source Code'. Below this, there are buttons for 'Autodetect Tables', 'Clear All Selections', and 'Preview & Export Extracted Data'. The main area shows a preview of the extracted data from a PDF document titled 'Brooklyn Rent Stabilized Building List'. The data is presented in a table with columns: ZIP, BLOCKID, STREET, STUPEY BLOCKID, STREETZ, STUPEY CITY, CTRY, STATUS1, STATUS2, STATUS3, BLOCK, and LOT. The table contains multiple rows of data, including addresses like 11201 131, 11201 136, 11201 141, etc. The sidebar on the left shows thumbnails of the PDF pages, with page 1 selected. The bottom of the interface shows the source URL and page number (Page 1 of 116).

ZIP	BLOCKID	STREET	STUPEY BLOCKID	STREETZ	STUPEY CITY	CTRY	STATUS1	STATUS2	STATUS3	BLOCK	LOT
11201	131	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			291	45
11201	136	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A	REXING HOUSE		296	19
11201	141	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			291	40
11201	145	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			291	38
11201	147	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			291	37
11201	153	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A	REXING HOUSE		291	34
11201	155	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			291	33
11201	174	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			297	13
11201	176	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			297	16
11201	177	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A	NON EVICT COOP/COOP		292	49
11201	181	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			292	47
11201	182	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			297	19
11201	184	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			297	19
11201	186	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			297	19
11201	188	AMITY	ST		BROOKLYN	01	MULTIPLE DWELLING A			297	19
11201	122	ADLAND	PL		BROOKLYN	01	MULTIPLE DWELLING A	J-5T	NON EVICT COOP/COOP	2001	40
11201	89	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			274	16
11201	88	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			284	13
11201	90	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			284	13
11201	92	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			284	16
11201	93	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			274	13
11201	99	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			274	11
11201	148	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			293	23
11201	154	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			293	26
11201	224	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A	GARDEN COMPLEX		278	26
11201	284	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			181	22
11201	288	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			181	24
11201	307	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A	421-A		176	49
11201	120 TO 122	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			288	10
11201	164 TO 168	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			286	8
11201	182 TO 200	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A	421-A		286	17
11201	304 TO 306	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			182	7
11201	325 TO 327	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A			176	41
11201	94 TO 106	ATLANTIC	AVE		BROOKLYN	01	MULTIPLE DWELLING A	J-5T		284	17
11201	96	BAL TIC	ST		BROOKLYN	01	MULTIPLE DWELLING A	GARDEN COMPLEX		309	13
11201	98	BAL TIC	ST		BROOKLYN	01	MULTIPLE DWELLING A	GARDEN COMPLEX		309	14
11201	102	BAL TIC	ST		BROOKLYN	01	MULTIPLE DWELLING A			308	16
11201	108	BAL TIC	ST		BROOKLYN	01	MULTIPLE DWELLING A			309	19
11201	110	BAL TIC	ST		BROOKLYN	01	MULTIPLE DWELLING A			309	20
11201	131	BAL TIC	ST		BROOKLYN	01	MULTIPLE DWELLING A			305	34
11201	139	BAL TIC	ST		BROOKLYN	01	MULTIPLE DWELLING A			305	32
11201	209	BAL TIC	ST		BROOKLYN	01	MULTIPLE DWELLING A			306	29
11201	311	BAL TIC	ST		BROOKLYN	01	MULTIPLE DWELLING A	GARDEN COMPLEX		306	53
11201	319	BAL TIC	ST		BROOKLYN	01	MULTIPLE DWELLING A			306	51

Image 29: Using Tabula to convert the data into spreadsheet form, 2016.

The original format of this data masks its spatial dimensions, which limits the public's ability to understand it. Because the RGB lists contain Block and Lot information, it is intuitive to map this data and bring these spatial dimensions to light. By concatenating Borough, Block and Lot, the BBL is generated which can be joined to PLUTO and mapped. Below is a map of a small portion of PLUTO with the rent-stabilized buildings highlighted in yellow.



Image 30: PLUTO, with rent-stabilized parcels highlighted in yellow (Data Source: BYTES, Open data portal, 2016)

As the Rent Guidelines Board website makes clear, this is a list of buildings that contain rent-stabilized units, but provides no information about how many units or what percentage are currently stabilized within them. Thus, at a presentation to NYC's Civic tech community on July 3, 2014 (<https://www.youtube.com/watch?v=2pv4hPMbmQ4>), the author suggested that the Civic tech community work on obtaining the units data, and in the meantime, created an interactive web-map of the data, so the public could interact with it in map form. In the map, Brooklyn's current stock of rent-stabilized is categorized according to how the units are funded (e.g. 421A, J-51). By clicking on any of the stabilized parcels, a user can also see selected fields of information from PLUTO, such as date of construction of the building, number of total units, and owner's name. That map is available here ([https://emilyalice.cartodb.com/viz/0736f8b2-70f7-11e4-a4d7-0e9d821ea90d/public\\_map](https://emilyalice.cartodb.com/viz/0736f8b2-70f7-11e4-a4d7-0e9d821ea90d/public_map)), and a portion of it is pasted below.



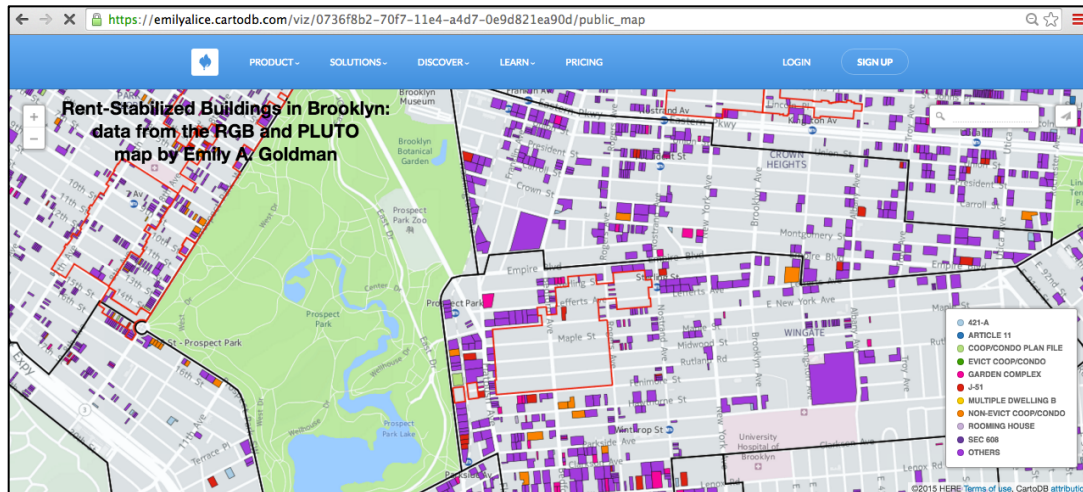


Image 31: Goldman's interactive web map of Brooklyn's rent-stabilized parcels in 2013, using CartoDB, open source software (Data Source: BYTES, Open data portal, RGB website, 2015)

A few months later, Chris Henrick, cartographer and Civic hacker, filed a FOIL request with the Department of Housing and Community Renewal (the City agency that works with the Rent Guidelines Board to set the annual allowable rent increase for stabilized apartments), and obtained the same buildings data in three-year increments going back to 2002. Henrick also created a very effective app called "Am I Rent Stabilized" to help people discover if their apartment might be rent-stabilized without them even knowing it, and what measures to take if indeed this was a possibility (Henrick, 2014).

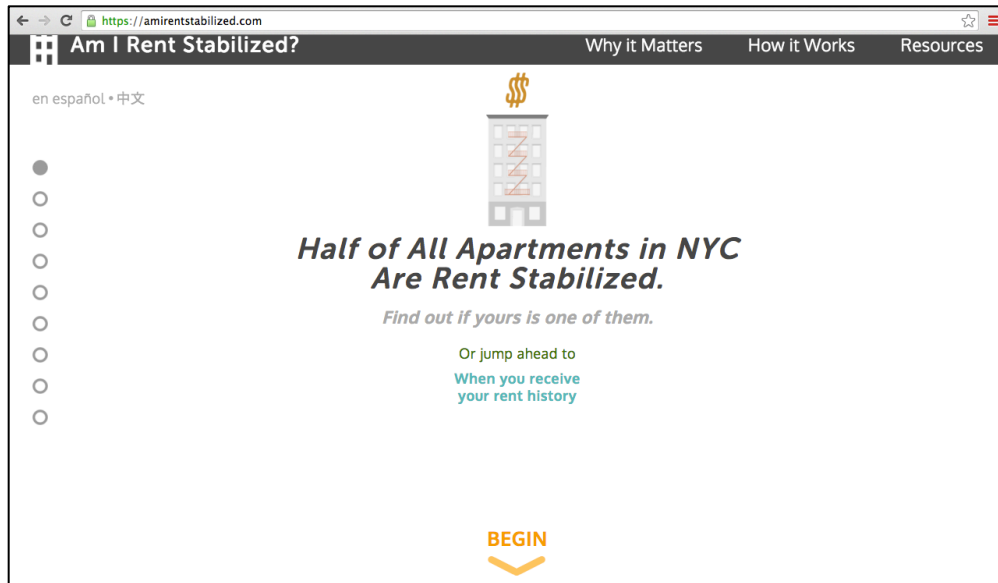
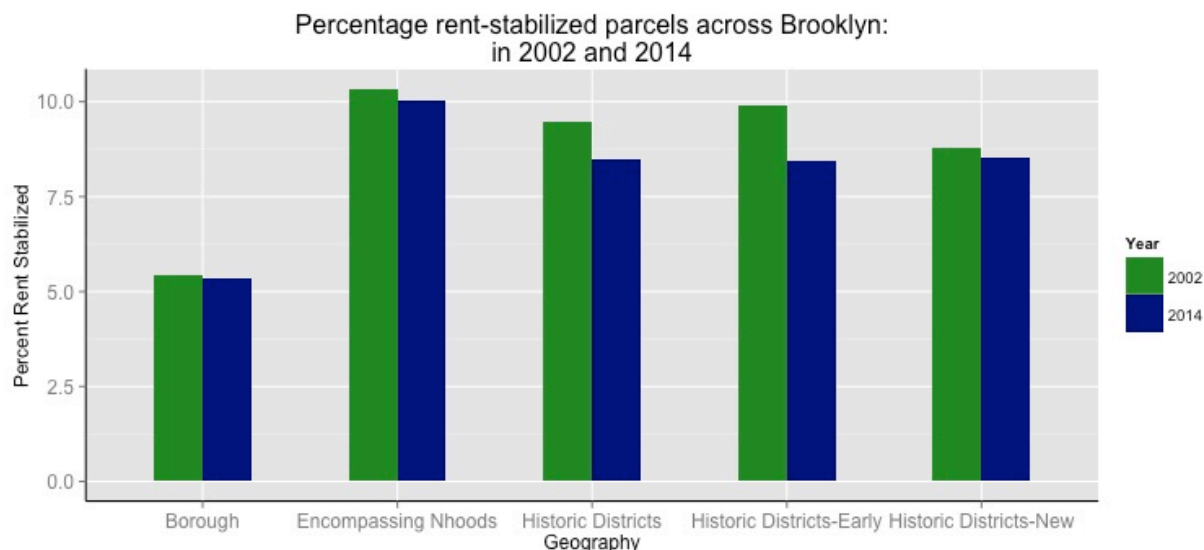


Image 32: Henrick’s app to help people find out if they may live in a rent-stabilized unit (Source: <https://amirentstabilized.com>; 2016).

Using the data that Henrick obtained, the following section shows how the rent-stabilized building stock has changed over time between 2002 and 2014 in several areas. Because these areas vary so much in size and density, the total number of rent-stabilized buildings is normalized by the total number of residential buildings in each area (buildings with one or more residential units) to obtain the percentage of rent-stabilized buildings.

The following graph shows that the percent of rent-stabilized buildings is highest in the 15 NTAs—both in 2002 and 2014. Perhaps surprisingly, it also shows that the percent of rent-stabilized buildings in the historic districts significantly exceeds that of the borough, but the net loss in percent rent-stabilized buildings in the historic districts is higher than in their neighborhoods or borough. Within the two subsets of historic districts, the early historic districts started out with a greater percentage of rent-stabilized buildings and have lost a larger share of this stock over time than the new historic districts.





Graph 5: Rent-stabilized buildings data (Data Source: BYTES, Open data portal, RGB website, 2016)

The retention rate of rent-stabilized buildings is calculated by determining how many buildings appear on the list in 2002 and 2014. Confirming the above results, the historic districts, and specifically the early-designated historic districts, show the lowest retention rates among the five geographies.

Table 13: Change in rent-stabilized buildings over time (Data Source: BYTES, Open data portal, RGB website, 2016)

<i>Geography</i>	<i>RS (2002)</i>	<i>RS (2014)</i>	<i>% Change</i>	<i>RS Retained</i>	<i>% Retained</i>
Borough	13,023	13,221	1.52%	10,248	78.48%
15 NTAs	6,091	6,155	1.05%	4,731	77.67%
HDs	1,245	1,124	-9.72%	928	74.54%
HDs-Early	803	691	-13.95%	591	73.60%
HDs-New	442	433	-2.08%	337	76.24%

Using the list of buildings that have retained their rent-stabilized status between 2002 and 2014, a heat map shows hotspots of retention in North Bushwick and Greenpoint, with

some significant retention in Brooklyn Heights, and in the neighborhoods north of Prospect Park (Park Slope, Prospect Heights, Crown Heights), southeast of Prospect Park (Prospect Lefferts Gardens), and trailing south into Sunset Park and Bay Ridge.

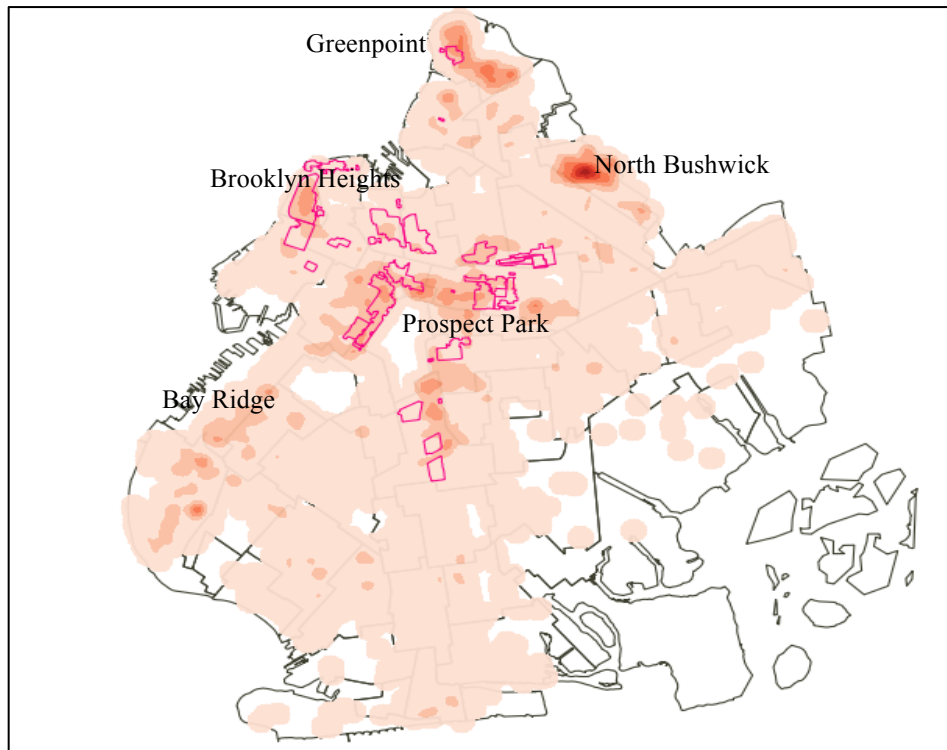
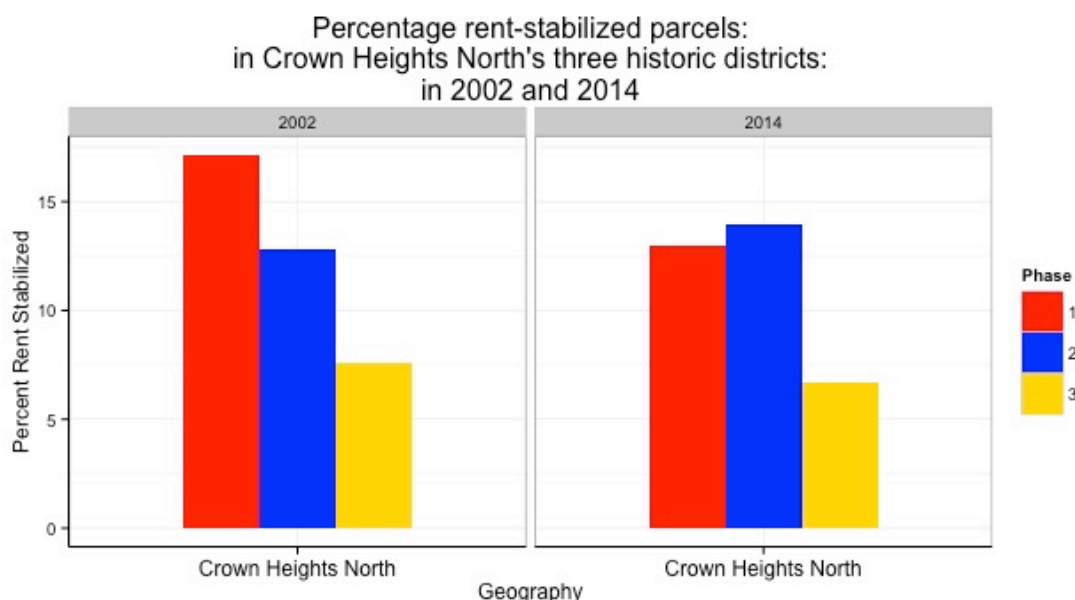


Image 33: Heat map of buildings that have retained their rent-stabilized status between 2002 and 2014, with historic district boundaries in dark pink (Data Source: BYTES, Open data portal, RGB website, 2016).

Revisiting Crown Heights North, the following graph shows that Phase I, which was designated in 2007, is the only phase to have experienced any loss in percentage of rent-stabilized buildings during this time period (from 17% to 13% between 2002 and 2014).



Graph 6: Rent-stabilized buildings in CHN (Data Source: BYTES, Open data portal, RGB website, 2016)

The table below summarizes net loss, and rate of retention of rent-stabilized buildings in the three historic districts of Crown Heights North. Phase I has experienced the greatest net loss.

Table 14: Change in rent-stabilized buildings in CHN (Data Source: BYTES, Open data portal, RGB website, 2016)


<i>Geography</i>	<i>RS (2002)</i>	<i>RS (2014)</i>	<i>% Change</i>	<i>RS Retained</i>	<i>% Retained</i>
CHN Phase I	71	54	-23.94%	44	61.97%
CHN Phase II	76	83	9.21%	64	84.21%
CHN Phase III	48	42	-12.5%	36	75.00%

Hence, the buildings data show that the historic districts exhibit a perhaps surprisingly strong density of buildings that are registering as rent-stabilized, compared to the encompassing neighborhoods and the borough on the whole. It also shows, though, that the historic districts, especially the early-designated historic districts, have lost the

greatest percentage of rent-stabilized buildings since 2002. In keeping with this, Crown Heights North Phase I, the longest-designated of the three, exhibits the greatest loss so far. This implies a direct relationship between the “age” of historic districts and their loss of rent-stabilized buildings.

The units data:

After almost exactly one year of no known developments in finding the units data (the above analyses concern *buildings* registered as containing some rent-stabilized units), on July 1, 2015, Civic hacker John Krauss released to the public an original project he undertook to scrape this data from hundreds of thousands of property tax bills going back to 2007 that he downloaded from the Department of Finance website. These tax bills state how many rent-stabilized units each building has due to there being a 10\$ fee associated with each rent-stabilized unit. See the image below:



# Statement Details

June 5, 2015  
Js 97 Lic  
97 Brooklyn Ave.  
3-01215-0008  
Page 2

Previous Charges	Due Date	Amount
Total previous charges including interest and payments		\$0.00

Current Charges	Activity Date	Due Date	Amount
Finance-Property Tax		07/01/2015	\$105,901.42
Credit Received	06/05/2015		\$-4,088.27
J51 Abatement	06/05/2015		\$-1,846.58
Housing-Emergency Repair		07/01/2015	\$722.04
Payment	03/11/2015		\$-722.04
Housing - Property Registration Fee		07/01/2015	\$13.00
Health-Inspection		07/01/2015	\$85.50
Credit Received	05/20/2015		\$-93.09
Sales Tax	04/15/2015		\$7.59
Total current charges			\$99,979.57

Tax Year Charges Remaining	Activity Date	Due Date	Amount
Finance-Property Tax		01/01/2016	\$105,901.42
J51 Abatement	06/05/2015		\$-1,846.58

<b>Rent Stabilization fee \$10/apt.</b>	<b># Apts</b>	<b>RS fee identifiers</b>	
Housing-Rent Stabilization	50	01/01/2016 032200300 200301	\$500.00

Total tax year charges remaining	\$104,554.84
----------------------------------	--------------

## Annual Property Tax Detail

Tax class 2 - Residential, More Than 10 Units	Tax rate
Current tax rate	12.8550%

Estimated market value \$4,331,000	Billable assessed
------------------------------------	-------------------

Image 34: Sample tax bill scraped for rent-stabilized units data for a rent-stabilized building in Crown Heights North (Source: <http://nycprop.nyc.gov/nycproperty/StatementSearch?bbl=3012150008&stmtDate=20150605&stmtType=SOA>).

In Krauss's blog about his project, he wrote:

Remarkably, the number of stabilized apartments in each building over the last seven years is hidden in plain sight, in property tax bills. With help from a few civic hackers, I built [taxbills.nyc](http://taxbills.nyc), a collection of every tax bill going back to 2008 for every building that might be stabilized in New York City.

Putting together this site required downloading hundreds of thousands of tax bills PDFs over several months because New York City's Department of Finance

(DoF) wanted \$50,000 to mail me files that could already be found free online (Krauss, 2015).

The units data is a better representation of the actual stock of rent-stabilized *housing*, as opposed to buildings that contain them.



Graph 7: Change in rent-stabilized units data in six geographical groupings (Data Source: BYTES, Open data portal, taxbills.nyc, 2016)

According to the analysis, the historic districts have a significantly smaller share of rent-stabilized housing than both the borough and the neighborhoods that contain them in both years, and their net loss is greater. The early-designated historic districts have the lowest percent and the greatest net loss. The percent of rent-stabilized housing in the Crown Heights North historic districts, however, is dramatically higher than the rest. This raises

the important question, are there ways for the civic-minded Preservationists to work on preserving this dimension of the community as well?

Table 15: Percent loss of stabilized units (Data Source: BYTES, Open data portal, taxbills.nyc, 2016)

<i>Geography</i>	<i>% RS 2007</i>	<i>% RS 2014</i>	<i>Percent Change</i>
Borough	25.15	23.51	-3.05%
15 NTAs	30.79	28.05	-2.68%
Historic Districts	21.66	16.86	-23.27%
Historic Districts-Early	19.64	13.50	-33.31%
Historic Districts-New	25.18	22.44	-9.66%
Historic Districts-Crown Heights North	40.37	36.63	-9.55%

The units data more accurately portrays what is happening to the total supply of rent-stabilized housing, also confirming that the historic districts, particularly the early-designated ones, are losing their supply more rapidly than any of the other groups. Thus, both datasets reveal the same pattern of significant loss of rent-stabilization in the *early-designated* historic districts. This suggests that, in time, these particular historic areas will only house people who can afford market-rate or luxury prices. Planners and preservationists must contemplate the implications of this discovery, and work on policies to prevent this from happening.

Another question remains: will the *newly-designated* districts also begin to lose their supply at the same rate as the early ones are now? Or, is it possible that the new districts will follow a different path? The new wave of designations brought much more diversity and inclusivity to Brooklyn's historic districts (the very high percentage of rent-stabilized

housing in the Crown Heights North historic districts reflects this), and, especially in light of the preceding chapter about the *uses* for designation in some of these areas, it is *not* inevitable that the new districts are on the same course as the early-established ones.

#### Property Sales Data:

Property sales information, once obtained at the parcel level, can also be appended to PLUTO. Having data on the number of sales per parcel per year opens up the opportunity to analyze real estate activity across various spatial groupings in the borough over time. Previous studies have focused on sale price or property value, measuring how historic district designation appears to influence the rate at which a home appreciates (Gale, 1991; Coulson, Leichenko, 2001). Here, the focus remains on the sheer density of sales in historic districts, versus their encompassing neighborhoods, and the borough on the whole. It starts with a brief discussion about data access and manipulation and then shows and interprets the results.

Just as analysis of rent-stabilization over time required data obtained via a FOIL request to the DHCR, analysis of property sales required a FOIL request to the Department of Finance. Each state has adopted a Freedom of Information Law (FOIL), following 1966, when the federal version, the Freedom of Information Act (FOIA), was passed. FOIL and FOIA are meant to promote transparency and accountability in government agencies by requiring them to make their documents available to the tax-paying public.

In the 21st century, government documents are increasingly distributed in the form of electronic data, and new policies are extending the goals of Freedom of Information to



account for this shift. In 2009, a broad Open Government Initiative was launched "to ensure the public trust and establish a system of transparency, public participation, and collaboration;" and Open Data laws came online a few years later ("Transparency and Open Government," *The White House*, 2009). New York City passed Local Law 11 in 2012, and the first national Open Data policy was signed into effect in 2013. These laws specify that the data government uses should be "open and machine-readable," so the public can freely use it too ("Open Government Initiative," *The White House*, 2009).

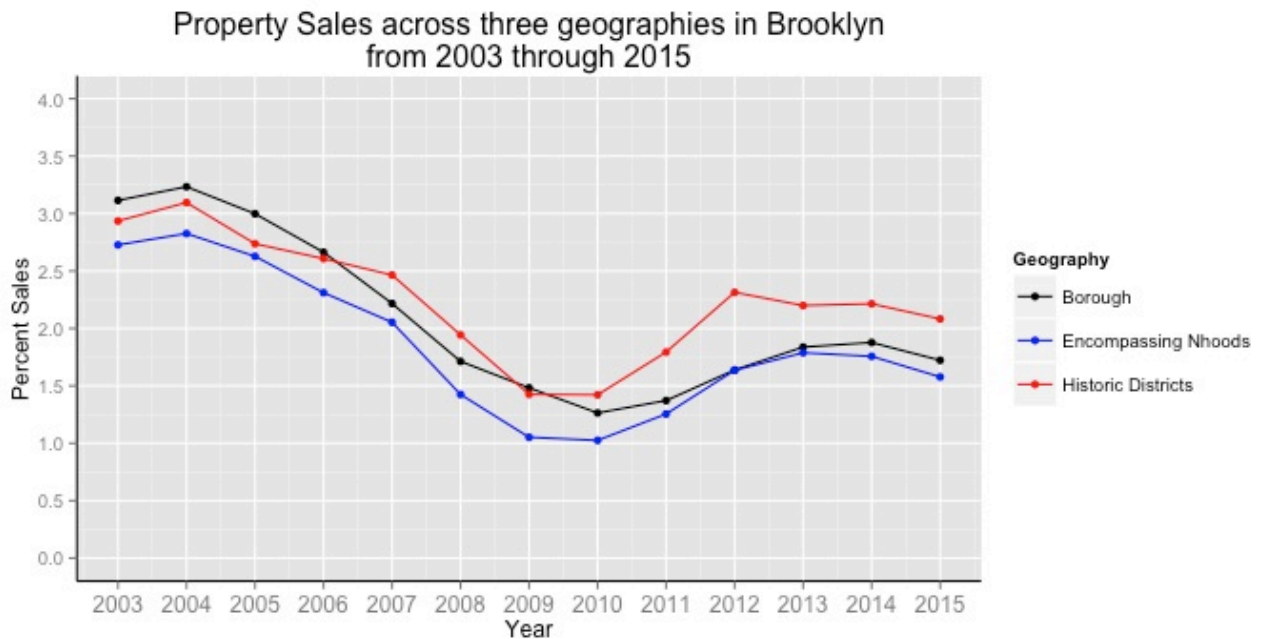
Data access and manipulation:

The Department of Finance (D of F) in New York City government is the record-keeper of property-related tax and financial documents. In accordance with Local Law 11, the D of F has posted data about every individual property sale across the entire city for the current calendar year, in spreadsheet form. The historical sales data, going back to 2003, is aggregated at the neighborhood level, and the Department of Finance uses different neighborhood boundaries than the Department of City Planning.

To conduct the analyses, the historical sales data needed to be available at the individual property level in order to customize the boundaries of the data to follow Neighborhood Tabulation Area and historic district lines. Thus, a FOIL request was submitted to the Department of Finance asking for this finer-grain data. See Appendix 7 for the text of this request.

In accordance with the law, but with a remarkably quick turn-around, data on every reported individual property sale (including whole buildings, apartments, condos, commercial units) were posted online about one week later. First, the data needed first to be configured to convey the number of property sales *per parcel*; then, it could be joined to PLUTO by the unique identifier, BBL.

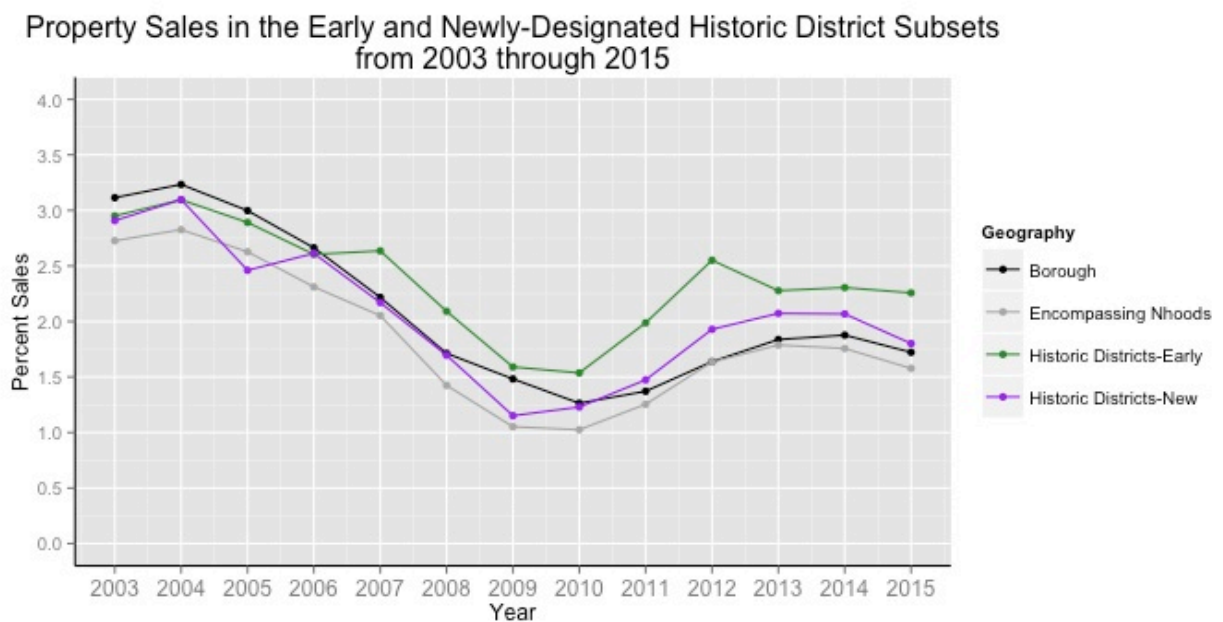
In the following graphs, the density or percentage of sales is portrayed over time in different spatial groups. For percentage, total sales are normalized by total number of units. The first graph compares historic districts, to the encompassing neighborhoods, to the borough.



Graph 8: Density of sales in the borough, the 15 NTAs, and the HDs (Data Source: BYTES, Open data portal, Dept. of Finance website, 2016)

Starting in 2006, corresponding to when the new wave began, the percentage of sales has consistently been highest in the historic districts (except for the year 2009, when it was slightly lower than that of the borough on the whole). Sales dipped across the board starting in 2007, corresponding to the financial crisis, but after 2009, the historic districts recovered more quickly. Sales peaked in the historic districts in 2012, and remains significantly above the rest through 2015.

The second graph distinguishes the trajectory of percent sales between the earlier and newly-designated historic districts.

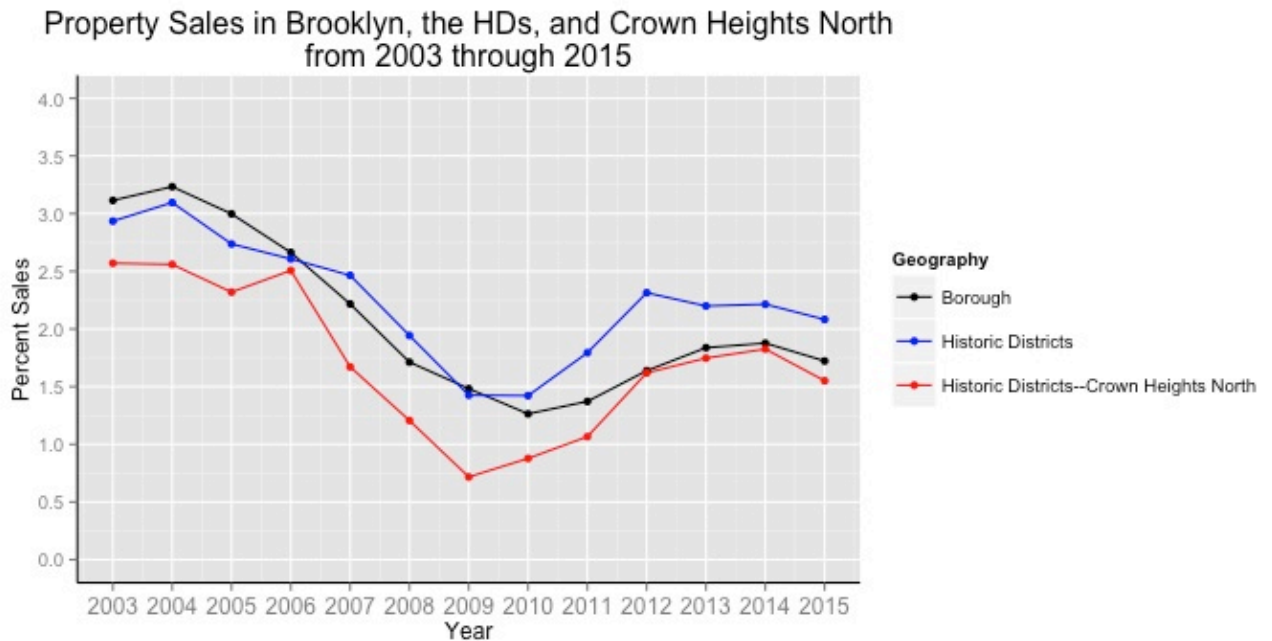


Graph 9: Density of sales in the early and new district subsets, with the borough and the 15 NTAs as control groups (Data Source: BYTES, Open data portal, Dept. of Finance website, 2016)

This graph shows that the percent sales has been consistently higher in the early-designated historic districts than in the newly-designated ones for all years, and since 2010, both subsets of historic districts are showing a higher density of sales than the borough on the whole and encompassing neighborhoods.

There is a turning point in 2006, when sales in the early-designated districts began to surpass the borough, and sales in the newly-designated districts began to mirror sales in the borough rather than lie significantly lower. Since the first of the new districts was calendared in 2006, this suggests that the new wave of preservation may have impacted sales activity not only in the areas about to become districts, but also in the long-established ones.

The third graph looks at the Crown Heights North historic districts, compared to the borough and the historic districts as a whole.



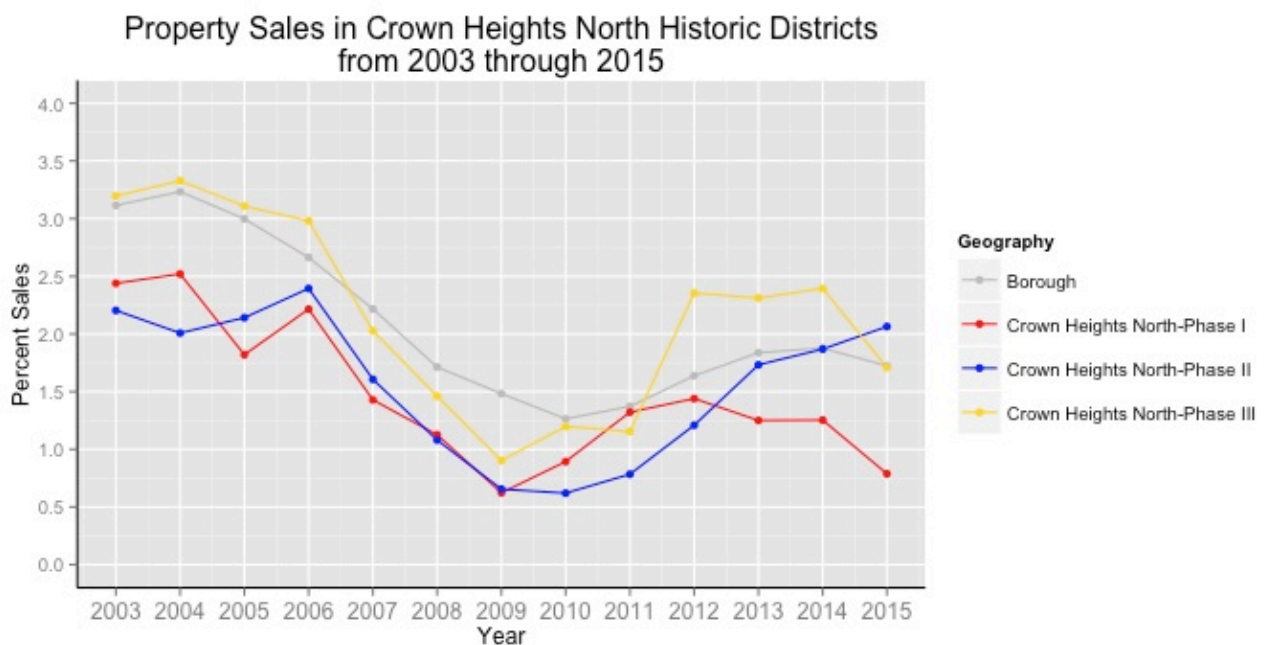
Graph 10: Density of sales in the borough, the HDs, and CHN historic districts (Data Source: BYTES, Open data portal, Dept. of Finance website, 2016)

Except for 2006, the density of sales in the Crown Heights North historic districts has been consistently lower than that of the borough and the historic districts as a whole. Since 2009, however, the trajectory of sales density is upward, and since 2012, is close to matching that of the borough.

Also, density of sales in Crown Heights North took a particularly sharp dive during the years 2006-2009. This dip corresponds to the years surrounding the financial crisis, but also to the designation of Crown Heights North Phase I, calendared in 2006. Though designation may prompt sales, it may also first *deter* them, as long-term owners wait to sell until the value of their property reaps the benefits of its new landmark status.

Conversations from fieldwork confirm this may be the point of view of owners in newly-designated areas.

The final graph looks at the three individual historic districts in Crown Heights North to see how date of designation may affect sales (CHN I was designated in 2007, CHN II in 2011, CHN III in 2015).



Graph 11: Density of sales in the individual CHN historic districts (Data Source: BYTES, Open data portal, Dept. of Finance website, 2016)

There is an upward swing in sales activity in all three districts starting in 2009, while sales in the borough on the whole continued to drop through 2010. In 2012, sales activity begins to diminish in Crown Heights North Phase I, while it continues to grow in Phase II, and it plateaus in Phase III until 2014 at which point it goes down too. Taking into account the designation dates of each district, it is possible that sales activity is likely to

decrease at some point before designation as owners wait for the effects on property value to manifest, and then increase in the years immediately following designation, when owners find it timely to sell, and new-comers are eager to move in before prices get too high. In the case of Crown Heights North Phase I, the sales activity appears to have settled down since 2012.

The correlation between designation and sales density appears to be quite complex, but there are at least two take-away points from the analyses:

1. From the first two graphs, the new designations appear to have had impacts on sales density across *all* historic districts and particularly in the earlier-designated ones, as sales density in the early-designated districts has been consistently and significantly higher than any of the other geographies since 2006 (the first new designation was in 2007 but it was calendared in 2006). Brooklyn's new wave of preservation appears to have sparked sales activity in the districts unaffected by the new regulations.
2. Looking closely at the trajectory of sales density in the newly-designated districts, and particularly in Crown Heights North, it appears that at some point before designation, the density of sales decreases, perhaps as owners wait out designation, while at some point immediately after designation, sales pick up again and the density increases. It is the precipitous drop from 2006-2009 in Crown Heights North, compared to the other geographies, that suggests more than the financial crisis was at work in lowering the density of sales in this area.

A more comprehensive analysis of each historic district's density of sales over time would be necessary to confirm any general pattern in when these highs and lows occur with regard to designation dates. Nonetheless, these insights into the nature of sales activity in historic districts in the 21<sup>st</sup> century would not have been possible without developments in Open data and Civic tech, starting with a FOIL request to the Department of Finance for previously unlisted data.

“grepl” & Limited liability companies

The final analysis of this chapter makes use of the command “grepl” in the statistical software R (also F/OSS) to search the “Owner Name” field in PLUTO for the expression “LLC,” in order to quantify the growth of this type of business entity in real estate, between 2002 and 2015. The question motivating this investigation is whether historic districts been any less or more susceptible to the rise of LLCs than the encompassing neighborhoods or the borough as a whole. It also looks for a difference between the early-designated and newly-designated subsets.

Limited liability companies (LLCs) have come under major scrutiny recently especially as they pertain to real estate and, specifically, housing development. As an example of this exposure, in 2015, the *New York Times* launched a year-long investigation and a five-part series about the presence of "Shell Companies" in NYC real estate. LLCs are a main type of "Shell Company" (Story & Saul, 2015).



As the authors in this series note, the LLC as a new type of business entity was first authorized in the United States in 1977 with the creation of the Wyoming LLC, an oil company (Story & Saul, 2015, Hamill, 2005). The LLC was an extremely attractive option, especially at first to oil and gas traders, because it combined desirable features of other types of business entities--namely, it offered the direct statutory limited liability protection of corporations AND the single level of tax on profits ("pass-through taxation") of partnerships (Hamill, 2005). The significant advantages of designating oneself an LLC are known to be facilitating "lower-stakes" real estate investment.

There is no database about LLC ownership at the parcel level. When an entity is an LLC, however, the expression is usually in the owner's full name. For example, "JS 97 LLC" is the owner of the building whose tax bill is reproduced earlier. Thus, the Owner Name information in PLUTO can be searched for "LLC" using the command "grepI," also accounting for variations in punctuation such as "llc," or "L.L.C." Below is the command used:

```
out[,llctrunc:=grepl(llcPatterntrunc, OWNERNAME, ignore.case = TRUE, perl = TRUE)]
```

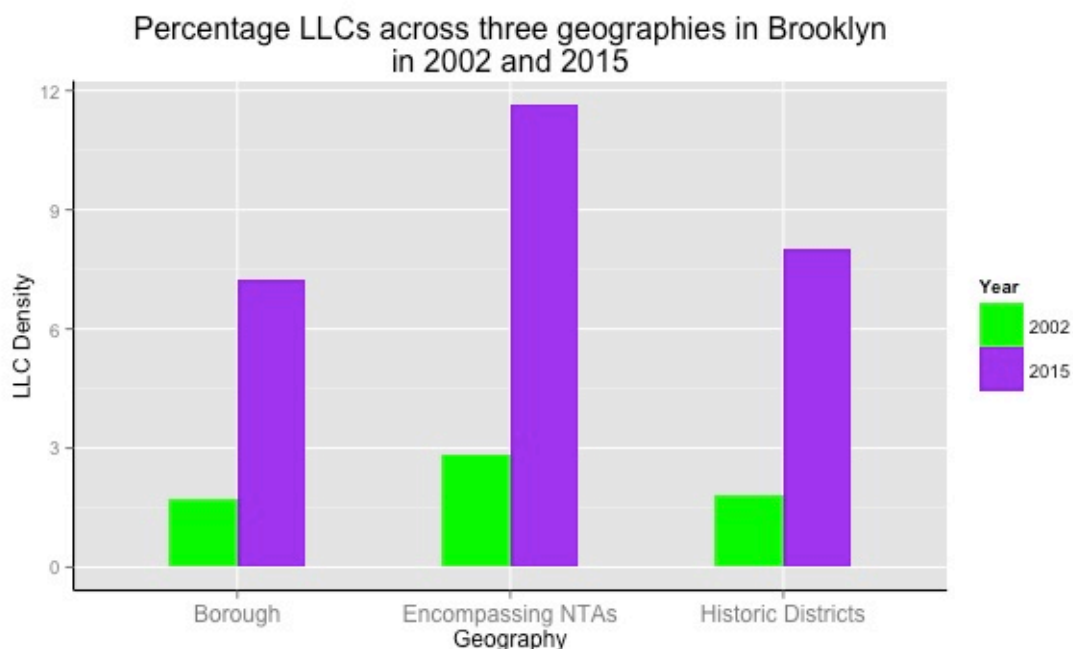
This function will generate another field in PLUTO which will indicate TRUE or FALSE, depending on whether LLC was found in the Owner Name field ("grep {base}," *inside-R | A Community Site for R*).

The method is far from perfect, however, mainly due to the fact that the Owner Name field in PLUTO is limited to 21 characters. Therefore, a parcel owned by "TUCK-IT-AWAY ASSOCIATES - DUMBO, LLC", would appear as: "TUCK-IT-AWAY ASSOCIAT" in PLUTO, and grepl will generate a FALSE for the LLC search.

John Krauss's tax bills dataset, though, provides the complete Owner name of every parcel listed in PLUTO, for the year 2015. Using grepl on this dataset captures an additional 7,699 LLC-owned parcels.

Despite the truncation issue, a comparison of the PLUTO data from 2002 and 2015 should still help to document the rise of LLCs, though the numbers will be underestimates. The final analysis which only looks at the year 2015 uses Krauss's improved dataset.

The first graph shows the growth of LLCs between 2002 and 2015 in the borough as a whole, the neighborhoods that contain historic districts, and the historic districts themselves. The total number of LLC-owned parcels is normalized by the total number of parcels.



Graph 12: Change in presence of LLCs between 2002 and 2015 (Data Source: BYTES, Open data portal, 2016).

The results confirm the growth of LLCs in real estate across Brooklyn. The historic districts show the greatest percent gain.

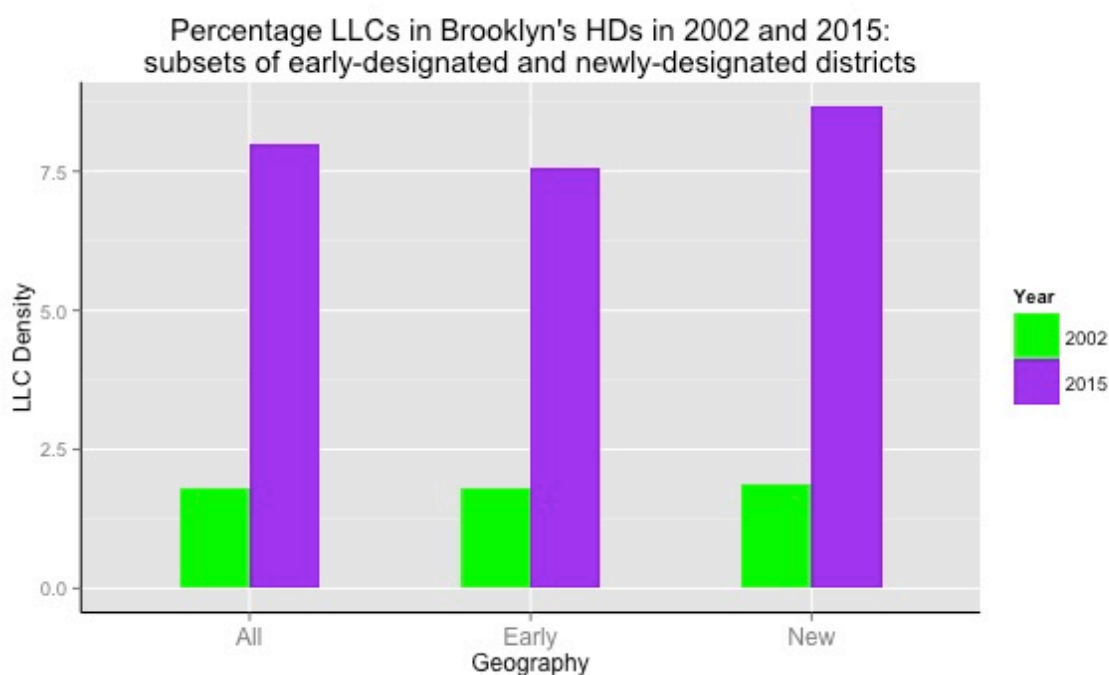
Table 16: Number and percent LLCs, 2002 and 2015 (Data Source: BYTES, Open data portal, 2016).

<i>Geography</i>	<i>2002</i>		<i>2015</i>		<i>% Change</i>
	<i>Tot. LLCs</i>	<i>% LLC</i>	<i>Tot. LLCs</i>	<i>% LLC</i>	
Borough	4,782	1.72%	20,067	7.24%	319.64%
15 NTAs	2,047	2.85%	8,306	11.67%	305.76%
HDs	250	1.82%	1,103	7.99%	341.20%

This finding could be counter-intuitive. Historic districts have a reputation for attracting community-minded investors. Also, buildings in historic districts, on average, have a smaller number of units than their surrounding areas, and LLC-owned buildings, on

average, have significantly more units than non LLC-owned buildings—suggesting that LLC investment may be inherently more likely outside of historic districts by virtue of the size of buildings.<sup>13</sup> This may partially account for why the percentage of LLCs is still higher in the broader neighborhoods (12% to 8% in 2015).

The following graph shows the presence of LLCs in the historic district subsets.



Graph 13: Change in presence of LLCs in historic district subsets between 2002 and 2015 (Data Source: BYTES, Open data portal, 2016).

In 2002, the percent of LLCs started out slightly higher in the later-designated historic districts than the early-designated districts, and by 2015-- after the seventeen designations

<sup>13</sup> Buildings in historic districts have on average a smaller number of residential units than buildings outside of them (according to PLUTO data from 2015, 4.1 compared to 5.7 units); and LLC-owned buildings tend to have more residential units than non-LLC buildings (9.3 to 4.9 in the 15 NTAs outside the HDs).

had taken effect--this gap had increased. Percent change is highest in the newly-designated districts.

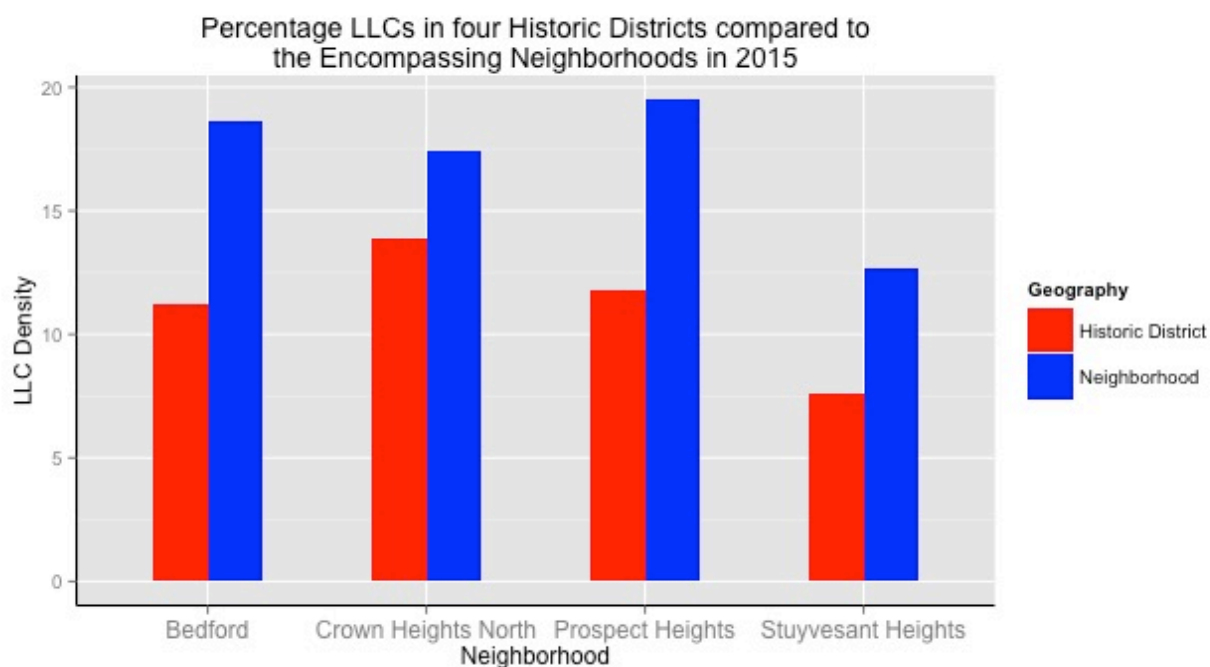
Table 17: Percent change in LLCs over time; historic district subsets (Data Source: BYTES, Open data portal, 2016).

<i>Geography</i>	<i>% LLCs (2002)</i>	<i>% LLCs (2015)</i>	<i>% Change</i>
Historic Districts	1.82%	7.99%	341.20%
HDs-Early	1.79%	7.57%	325.66%
HDs-New	1.87%	8.67%	365.31%

Why does this phenomenon appear to be most pronounced in the newly-designated areas?

Limiting the data to residential LLCs actually accentuates the trend. The data suggests that these areas are coveted for this type of real estate investment.

The last analysis looks at the presence of LLCs in four historic districts compared to their encompassing neighborhood, using the comprehensive data created by John Krauss.



Graph 14: LLC presence in 2015 in four historic districts and their larger neighborhood (Data Source: BYTES, Open data portal, 2016).

The percent LLCs is consistently greater in each encompassing neighborhood than in the historic district contained within it. Crown Heights North shows the least difference between the % LLC in the districts and the broader neighborhood.

Table 18: LLC presence in 2015. Historic district v. NTA (Data Source: BYTES, Open data portal, 2016).

<i>Neighborhood</i>	<i>Historic District % LLC-owned (2015)</i>	<i>Encompassing NTA % LLC-owned (2015)</i>
Bedford (Designated 2013)	11.19	18.61
Crown Heights North (Designated 2007,11,15)	13.88	17.43
Prospect Heights (Designated 2009)	11.80	19.51
Stuyvesant Heights (Designated 1971)	7.60	12.71

Exploring this a bit more, as of 2015, there are 234 LLC-owned buildings in the Crown Heights North districts and 1,452 non-LLC-owned buildings. The LLC buildings in Crown Heights North tend to be larger than the non-LLC buildings, as they average 11.75 units compared to 3.5. Given recent exposure of and concerns about LLC investment, could this information be useful to the planning and preservation-minded community in Crown Heights? Or do LLCs represent a market-driven force that is outside the realm of intervention?

These analyses confirm scholars' discussion of the "meteoric" rise of the LLC in the last decade or so (Hamill, 2005). The historic districts—despite certain qualities that may have suggested it could be otherwise—are not buffering the LLCs, and, in fact, their numbers in the newly-designated areas has increased at a faster rate than any of the other spatial groups. Though methods of action or intervention may be uncertain, this information may be useful for those involved with preserving the physical and social fabric of communities.

#### Conclusion:

This chapter emphasizes the data and techniques required to investigate three phenomena occurring throughout Brooklyn the 21st century which affect the plans of community-oriented Preservation—changes in rent-stabilization, property sales, and the growing presence of LLCs in real estate. Newly Open datasets are necessary to conduct the analyses, starting with PLUTO, the NTA shapefile, and the historic district shapefile. Then, more data that was not initially accessible is added—by scraping PDF documents

for information about rent-stabilization, by filing a FOIL request for parcel-level data on property sales since 2003, and by searching for the expression “LLC” in the Owner Name field in PLUTO, using the command “grepl.”

For each section, the main results are summarized below.

With regard to rent-stabilization, both in terms of buildings and units, the historic districts have experienced the greatest net loss in percentage rent-stabilized housing, compared to their encompassing neighborhoods and the borough as a whole. The early-designated subset has experienced the most pronounced loss. Also, the Crown Heights North historic districts have had a dramatically higher percentage of rent-stabilized housing than any of the other geographies (40% to 25% for the borough in 2007), and appear to be losing portions of their supply at a rate comparable to the newly-designated districts on the whole.

With regard to property sales, sales across all geographies took a dive around the time of the financial crisis, but recovered most quickly in the historic districts. Starting in 2006, the historic districts have had the highest density of sales, and this is particularly the case in the early-designated districts. Thus, though the recent designations directly implicate only the new districts, it appears they sparked real estate activity in the long-established districts as well.



Parsing out how the date of designation affects sales is slightly less clear, but there is evidence to suggest that at some point prior to designation, there may be a dip in sales as owners wait to reap the benefits of landmark status, and that at some point after designation, sales increase. Since an area is often calendared years before designation (and it is rare for a district to be calendared and not designated), these effects may begin much earlier than the designation date, *per se*. In Crown Heights North, for example, sales in the first district have settled down since 2012, which suggests there is also a possibility that a newly-formed community may stabilize for some length of time after a period of flux around the time of designation.

With regard to the growing presence of Limited Liability Companies as owners of buildings, as the literature suggests, the presence of LLCs as owners of property has increased dramatically across all geographical groupings in Brooklyn between 2002 and 2015. The greatest increase has been in the historic districts, with the newly-designated districts standing out most. The percentage owned by LLCs is still consistently lower in the historic districts than in their encompassing neighborhoods, which may be partially attributed to features of the building stock, like the fact that the average number of units in historic districts is smaller than outside of them, and LLCs tend toward larger buildings. In 2015, the Crown Heights North historic districts and neighborhood show the least difference in percentage owned by LLCs, when compared to three nearby districts/neighborhoods.

Apart from these findings, the other main aim of this chapter was to describe and demonstrate what kinds of new knowledge citizens, communities, and scholars have access to, due to recent developments in data and technology. Only through Open data and Civic tech were the analyses throughout this chapter feasible, and local community groups may be able to make use of this information. Being able to point to *where* something is happening makes a claim all the more powerful and may be instrumental for impacting policy, what sociologist E. Gordon Erikson calls, “spatial mooring,” in his book The Territorial Experience. Open data and Civic tech users can assist community groups with their data needs to support their advocacy work. Examples of how this might work are addressed in the Conclusion.

## CONCLUSION

In the Introduction to this dissertation, a broad point was made about the field of Historic Preservation: though the traditional object of this field has been aspects of the physical world (from small objects to large landscapes), since the late 20<sup>th</sup> century, scholars have paid increasing attention to *whom* is involved in and affected by Preservation efforts, and have built a strong theoretical foundation to support this line of thinking. The social dimensions of the field have actually been approached and discussed in a variety of ways, by scholars of Preservation, Planning, Geography, Anthropology, Archeology, Sociology, and Economics. In the broadest sense, this dissertation seeks to contribute to this body of work, both substantively and methodologically.

The existing scholarship has included critical reflection on Preservation itself, noting the importance of social inclusivity and diversity to the practice. Chapter 1, therefore, examines whether these ideals appear to be present in the recent wave of historic district designations in Brooklyn, New York between 2007 and 2015. The method employed, using Census data and historic district boundary information, has been used many times previously, most often to investigate the relationship between historic preservation and gentrification. This remains an important line of research, especially since the creation of historic districts is on the rise in many American cities and the social outcomes of these policies warrant attention. Using the method to explore how 21<sup>st</sup> century Preservation may differ from earlier waves is crucial too, though. Increasing awareness and understanding of the ideals for Preservation in this century is the first step to helping communities realize them.

Continuing with this theme, Chapter 2, by way of method, describes the culture and community of Preservation in Crown Heights North, where the new wave of designations began. Exploring the work of the Crown Heights North Association (CHNA) reveals their goals for designation, which are social and communal in nature. The processes and regulations that accompany Preservation are being used in Crown Heights North to go much beyond saving the “bricks and mortar.”

Chapter 3 can be viewed as contributing to this theme too from a very different vantage point, by looking at some of the inter-related realities occurring in Brooklyn. These are market-driven realities such as the loss of rent-stabilized housing, property sales, and the growth of LLCs as a type of business entity in real estate, all of which are found to be occurring most intensively in some of the historic districts. This suggests that the ideals and goals for 21<sup>st</sup> century Preservation are going to continue to experience constraints by phenomena that do not stop at historic district lines. Fine-grained awareness of them, however, improves the opportunity to develop strategies to intervene where deemed suitable and desired.

In this Conclusion, some of the findings from each chapter are revisited to tell an overall story. First, the results from Chapter 1 are examined in a slightly different light. The main dataset considered in Chapter 1 was 2000 Decennial Census block level data, because those data portray the demographics of all the districts in the new wave *before* they were designated. Since the new wave occurred between 2007 and 2015, comparing 2000 to 2020 Census data will provide perspective on how these areas have changed over

the course of the years when they became historic districts. How useful this type of analysis will be, though, is uncertain, since the changes will have already taken place.

Juxtaposing the 2000 and 2010 data may illuminate trends that are underway. The table below presents the two decades' data together.

<i>SF1 Data 2000 and 2010 Census</i>	<i>Early</i>	<i>New</i>	<i>15 NTA</i>	<i>Brooklyn</i>
Total Population: 2000	75,239	39,076	744,688	2,465,326
2010	71,373	38,741	755,967	2,504,700
Population Density: 2000	58,714	58,672	55,939	45,599
2010	52,935	58,091	56,612	46,786
Median Age: 2000	37.42	35.23	33.41	34.21
2010	38.77	38.08	34.79	35.76
% Female: 2000	51.54	54.50	53.63	53.09
2010	52.86	54.18	53.49	52.83
% Owner-occupied: 2000	<b>34.75</b>	24.86	20.52	27.07
2010	<b>39.32</b>	25.96	22.27	27.73
% Renter-occupied: 2000	<b>65.25</b>	75.14	79.48	72.94
2010	<b>60.68</b>	74.04	77.73	72.27
% White: 2000	61.20	<b>16.39</b>	30.47	41.20
2010	68.36	<b>27.30</b>	39.49	42.80
% Non-white: 2000	38.80	<b>83.61</b>	69.53	58.80
2010	31.64	<b>72.70</b>	60.51	57.20
% White owner-occupied: 2000	71.59	<b>29.72</b>	49.00	56.17
2010	75.15	<b>39.02</b>	55.63	55.02
% Non-white Owner-occupied: 2000	28.41	<b>70.28</b>	51.00	43.83
2010	24.85	<b>60.98</b>	44.37	44.98

Table 19: Block level data from both decades (Data Source: U.S. Census, BYTES of the Big Apple, NYC Open data portal, 2016).

A few results are worth noting. During this decade, the percentage of owner-occupied housing units increased significantly in the early-designated historic districts, compared to all of the other geographies. This appears to corroborate an idea from Chapter 3, that there were ripple effects in the early-designated districts, stemming from the new designations. Historic districts, new and old, may have gained new meaning starting in the 21<sup>st</sup> century.

The percent white population and the percent white-owned housing units have increased most significantly in the newly-designated districts, though these differentials in the broader neighborhoods are not far behind. Therefore, it becomes clear that though the changes were not isolated to the districts themselves, they were most pronounced there. In light of these changes, the possibility of convergence with the earlier-designated districts arises. Preservation scholars and policy-makers, both, need to consider the implications if the ideals of inclusivity and diversity that characterize the 21<sup>st</sup> century designated areas fade over time.

Turning to the on-the-ground Preservation work documented in Chapter 2, given CHNA's origins and development, one can assume that the organization would like to preserve the social dimensions of the Crown Heights North historic districts. But what tactics were available to them?

CHNA was attempting to accomplish this integration in two main ways: (1) giving residents the opportunity to receive direct financial assistance to restore or renovate their

homes by successfully listing the districts on the National Register; and (2) channeling the Preservation regulations toward reducing the impact of new development in the community, both physically and socially, since the two go hand-in-hand. Since the early 2000s, CHNA has also been educating long-term residents about many aspects of architecture, historic preservation, city planning, and many other related topics.

Thus, what ties Chapters 1 and 2 together is the important discovery that--whatever happens to these districts in the future--the ideals of social inclusivity and diversity, which characterize the new wave of designations, are affecting the ways in which local groups are handling historic district status, directing the processes and regulations of Preservation toward realizing their broader wishes and goals.

Chapter 3 documents some of the other phenomena that are contributing to major changes across the borough. With advances in Open data and Civic technology, it is possible to undertake, and freely, an investigation of rent-stabilization, property sales, and the presence of LLCs in real estate in highly customized geographies (all data and software used in this dissertation are open and free). Since the results of these analyses reveal that all three phenomena are occurring most intensively in the historic districts, this suggests that forces outside the realm of its own influence may limit Preservation's ideals. The positive side, however, is that having the ability to identify the mechanisms driving change, by virtue of Open data and Civic tech, enables us to identify patterns that may be problematic, envision alternatives, and advocate for changes deemed useful and productive for society.

For example, take the finding that the historic districts are, on the whole, losing their rent-stabilized housing at the fastest rate, but that Crown Heights North's rate of loss is still significantly lower than the borough's (9.5% to 23.3%). What can be done with this knowledge? Community groups will have their own ideas once they are provided with maps that locate the rent-stabilized buildings, and disclose their percentages of rent-stabilized units. Preservation groups specifically may want to learn more about the work of the Crown Heights Tenants Union (CHTU), which educates residents across a huge swath of Central Brooklyn about rent-stabilization laws (See Appendix 8 for one example of CHTU's outreach). Tenants in historic districts should at least become better informed about these trends. This brings up a second point, which is for Preservation groups to engage tenants, or renters, more in general. CHNA has apparently already recognized this, stating in its application for HDC's Six to Celebrate in 2015, "We would also like to attract more renters, and reach a group that is transitory in nature to take a part in the preservation of the places we call home" (6 to Celebrate app, CHNA, 2015). Finally, Preservation groups should also reach out to *landlords* of rent-stabilized buildings in historic districts, to make them aware of tax credits to reduce the costs of maintenance, for instance.

These are just a few thoughts about how fine-grained information about current phenomena could prove useful in unexpected or inventive ways to community-based organizations. The case study of CHNA shows that innovative action may likely start there.



In sum, this Conclusion attempts to tie Chapters 1, 2, and 3 together, recognizing their different sources of data and methodologies. Chapters 1 and 2 connect because the ideals for 21<sup>st</sup> century Preservation and the aims of local groups are found to be in sync with each other. In Crown Heights North, there is no conflict, from the point of view of many existing community members, between social inclusivity and diversity in historic districts and the newly-introduced Preservation regulations. In fact, the latter is considered a uniquely helpful means to achieve protection of the former. Though Chapter 3 begins to question the sustainability of these ideals, it also shows that Open data and Civic tech now allow researchers *and* citizens to gain greater awareness about what is happening in the built environment, an important step in addressing patterns perceived as problematic.

Returning to the people of this dissertation, the Crown Heights North Association and the network it built accomplished something historic by igniting, and sustaining for over fourteen years, the momentum to designate historic districts in Brooklyn that had not received the official recognition they warranted. Scholars and policy-makers can continue to learn from their work and, since it is ongoing, also contribute to it, by helping them achieve satisfying outcomes. In the broadest sense, by examining the goals of communities pursuing historic district designation in 21<sup>st</sup> century Brooklyn, this dissertation aims to bring to light the social dimensions of this practice. Viewing 21<sup>st</sup> century Preservation as motivated by a desire to protect the social fabric of community (“self-preservation”), not only provides a framework to understand the recent designations in their cultural and historical context, but also creates the possibility of helping communities actualize their hopes and aspirations. Furthermore, increasing

awareness of the constraints, made possible by Open data and Civic tech, improve this possibility even more. Community, Civic technology, and Preservation come together in multiple ways in this study, and in the field, and point to innovative and interdisciplinary work to come.

APPENDIX 1: Thirteen American cities and their numbers of historic districts (Data from the web and or phone calls with staff of the Commissions, summer of 2015).

<i>City</i>	<i># Designated Since 2000</i>	<i>Total # (as of 2015)</i>	<i>Designation Date First HD</i>	<i>Designation Date Latest HD</i>
Austin*	3	3	2008	2010
Boston	2	9	1955	2009
Charleston	0	3	1931	1997
Chicago*	29	59	1971	2009
Los Angeles*	22	29	1984	2013
New Orleans	1	15	1965	2007
NYC*	74	137	1965	2015
Philadelphia*	8	16	1984	2010
Pittsburgh	2	13	1972	2005
San Francisco	3	12	1971	2013
Savannah	0	1	1973	1973
Seattle	1	8	1970	2011
Washington DC	14	60	1950	2015

\* Cities where number of historic districts has at least doubled since 2000.

APPENDIX 2: Cities and Historic District shapefile availability (Data from the cities' websites, as of summer of 2015).

<i>City</i>	<i>Preservation Commission name</i>	<i># Historic Districts</i>	<i>Shapefile available?</i>
Austin	Historic Landmark Commission	3	No
Boston	Boston Landmarks Commission	9	Yes
Charleston	Board of Architectural Review	3	Yes
Chicago	Historic Preservation Division / Commission on Chicago Landmarks	59	Yes
Ithaca, NY	Ithaca Landmarks Preservation Commission	8	Yes
Las Vegas	Historic Preservation Commission	1	No
Los Angeles	Office of Historic Resources	29	Yes
New Orleans	Historic District Landmark Commission / Vieux Carre Commission	15	Yes
NYC	Landmarks Preservation Commission	137	Yes
Philadelphia	Philadelphia Historical Commission	16	No
Pittsburgh	Historic Review Commission	13	No
Portland	Historic Landmarks Commission	17	No
San Francisco	Historic Preservation Commission	12	Yes
Savannah	Savannah Historic District Board of Review	1	Yes
Seattle	Landmarks Preservation Board	8	No
Washington DC	Historic Preservation Review Board	60	Yes

## APPENDIX 3: Portion of CHNA's Six to Celebrate Application, 2015

**The proposed area's historic and/or architectural significance.**

Crown Heights North was developed in the latter part of the nineteenth century as the most desirable neighborhood for the burgeoning upper-middle class. Expensive, freestanding mansions with large lawns, unbroken rows of townhouses, beautiful large houses of worship, and important public buildings gave rise to a wealthy neighborhood called the St. Marks District. These buildings were all designed by some of the city's most notable and important architects, including Montrose W. Morris, George Poole Chappell, Axel Hedman, Magnus Dahlander, C.P. H. Gilbert and Frank J. Helmle. These architects were also working in the equally upscale neighborhoods of Brooklyn Heights, Park Slope and Clinton Hill.

By the 1920s and 30s, many of the mansions were replaced by impressive elevator apartment buildings, built for the growing number of middle class people leaving crowded Manhattan for a more gracious life in Brooklyn. These were "classic six" type apartments, with marble-clad lobbies and white gloved doormen. All of the buildings in the current historic district, as well as the calendared and proposed districts, are fine examples of thoughtful urban planning, and are equally representative of the late 19th and early 20th century's builders' craftsmanship and skill. The streetscape of Crown Heights North is a visually pleasing mix of building types, as well as styles, materials and ornament. Because of the variety and quality, it is unlike any other neighborhood in New York City.

**Threats to the proposed area (e.g. demolition, inappropriate alterations or construction)**

For developers, Crown Heights is now the most sought-after neighborhood in New York City. The resulting new developments are frequently unlike the buildings that surround them, either architecturally, proportionally, or both. More and more new homeowners have also begun to buy older properties, altering façades and adding extensions, often without regard to visual context or historical character.

**How HDC can be of assistance**

There are a number of initiatives that we feel HDC can help us with. First and for most Crown Heights North Association (CHNA) has successfully campaigned for Phases One and Two of the land marking process, but Phase Three has been stalled at the calendar stage for some years, and Phase Four has not yet had a chance to be introduced. This has prevented the organization from reaching our primary goal of land marking the central core of the neighborhood. CHNA needs help with increasing our board and general membership so we can become more effective as the guardian of the historic district. We want to attract new homeowners, as well as old. We would also like to attract more renters, and reach a group that is transitory in nature to take a part in the preservation of the places we all call home. Equally important is for us to reach out to our elderly population of homeowners ensuring that they are provided information that will assist them in maintaining their homes. Lastly we would like to connect with the merchants/business owners along the Nostrand Ave corridor between Atlantic Ave and Eastern Parkway and unite as co-supporters of the community at large.

**How long has there been a preservation campaign?**

CHNA had its first formal meeting in 2002. After defining the organization's goals, we contacted HDC in order to get expert advice in how to effectively proceed in navigating the long journey to neighborhood land marking. Over the course of the last twelve years, CHNA has met with our elected officials and Community Board 8, as well as homeowners. We've held community Q&A meetings/ forums for the community and our elected officials. The forums included representatives from the LPC, HDC and Landmarks Conservancy. We have mailed letters and answered questions, and helped the LPC coordinate responses to a very vocal and interested group of homeowners. We took photographs of every building, with addresses, blocks and lots, collected Requests for Evaluation, and letters of recommendation from elected officials and community leaders, which were then packaged and sent to the LPC.

**Have you contacted Landmarks/Parks & Rec? What was the response?**

CHNA has worked closely with LPC since our group's inception. We reached out to the LPC, as well as HDC to best plan our strategies in getting CHN landmarked. We worked from an architectural survey of the neighborhood conducted by the LPC in 1976. The area was deemed more than worthy, but for various reasons, the survey had be shelved for almost 30 years. Our proposed district was so large the LPC divided it into phases. After years of work, Phase 1 was landmarked in 2007. Phase 2 was landmarked in 2011, at which time the LPC also calendared Phase 3. A Phase 4 was in the original plan, but never formalized.

CHNA successfully worked with the New York State Office of Parks, Recreation and Historic Preservation to have Phases I & II placed on the National Register of Historic Places

**What other local groups have you contacted or are you working with?**

CHNA has been in contact and worked with various local groups over the past 12 years. These groups include but are not limited to Neighborhood Housing Services, NY Landmarks Conservancy, Assoc. Bar City of NY, Lawyers Foreclosure Network, NYSHPO, Community Board 8, Councilmembers, NYS Senate and Assembly members, Brooklyn Borough President, District Leaders.

**What's the level of community support (e.g. interaction with elected officials or community board)?**

Our efforts' has been supported by the Crown Heights North community and offers us a strong platform from which to work with elected officials. Over the years we have had the support of past local elected officials such as Councilmembers Letitia James, Al Vann, Brooklyn Borough President Marty Markowitz, and Senator Eric Adams, all of whom had been very supportive of our efforts from the beginning. We continue to receive support from our current elected officials including Congresswomen Yvette Clarke, Senators Velmenette Montgomery and Jesse Hamilton, Assembly members Karim Camara and Walter Mosley, Council members Robert Cornegy & Laurie Cumbo, Brooklyn Borough President Adams, District

Leaders and Community Board 8. In the last few years we've also worked with Community Board 8 to defend the historic character of the district by reviewing applications for alterations and new construction.

## APPENDIX 4: Portion of Crown Heights North's National Register Application, 2013

Crown Heights North Historic District <b>Name of Property</b>	Kings, New York <b>County and State</b>
--	--

---

**11. Form Prepared By**

---

name/title Gregory Dietrich, Principal

organization Gregory Dietrich Preservation Consulting date August 14, 2013

street & number 615 West 113<sup>th</sup> Street, # 3 telephone 917-828-7926

city or town New York state NY zip code 10025

This Nomination was sponsored by the Crown Heights North Association, Inc. and funded in part by The Preserve New York Grant Program of the Preservation League of New York State. The Preserve New York Grant Program of the Preservation League of New York State is made possible by the New York State Council on the Arts with the support of Governor Andrew Cuomo and the New York State Legislature. Fourteen Grants in 11 counties totaling \$83,674 were made by the Preserve New York Grant Program in 2012. The Preserve New York Grant Program supports outstanding local preservation projects throughout the state. Since 1993, Preserve New York has awarded over \$1.7 million in direct support to 279 projects.

---

**Additional Documentation**

---

Submit the following items with the completed form:

**Continuation Sheets**

**Maps**

A USGS map (7.5 or 15 minute series) indicating the property's location  
 A sketch map for historic districts and properties having large acreage or numerous resources.

**Photographs**

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Name of Property: Crown Heights North Historic District  
 City or Vicinity: Brooklyn  
 County: Kings State: New York

Photographer(s): Gregory Dietrich  
 Dates Photographed: 4/15/2013

**Description of Photograph(s) and number:**

1. 1109-1117 Bergen Street.
2. 1386-1394 Dean Street.
3. 979 and 981 Park Place.
4. 847 and 853 Prospect Place.
5. The John and Elizabeth Truslow House, 96 Brooklyn Avenue.
6. 1172-1180 Dean Street.
7. 868-874 Sterling Place.
8. 851-857 St. Mark's Avenue.
9. 1231-1235 Dean Street.
10. 885-891 Park Place.
11. 124-132 New York Avenue.
12. 869-875 St. Mark's Avenue.
13. 1459-1467 Pacific Street.
14. 897-907 Sterling Place.
15. 1221-1229 Dean Street.
16. 1146-1152 Dean Street.
17. 880-886 Park Place.
18. 980-986 Park Place.
19. 887-889 St. Mark's Avenue.



Crown Heights North Historic DistrictKings, New YorkName of PropertyCounty and State

20. 190 New York Avenue.
21. 815-819 Prospect Place.
22. 122-128 Brooklyn Avenue.
23. 939-947 Prospect Place.
24. 856-862 Prospect Place.
25. 258-274 New York Avenue.
26. 296-300 New York Avenue.
27. The Imperial Apartments, 1327-1339 Bedford Avenue.
28. The Granleden, 1143-1153/1155-1157 Dean Street.
29. 71-75 Brooklyn Avenue.
30. 1144 Bergen Street.
31. 811-817 Lincoln Place.
32. 884-900 Lincoln Place.
33. 258-264 Brooklyn Avenue.
34. Buckingham Hall, 769 St. Mark's Avenue.
35. Carolyn Apartments, 770 St. Mark's Avenue, and 762 St. Mark's Avenue.
36. Excelsior Apartments, 787-803 St. Mark's Avenue.
37. The Pierre, 907-33 Prospect Place.
38. St. Gregory the Great Roman Catholic Church, 224 Brooklyn Avenue.
39. 713 Nostrand Avenue.
40. Former Kings County Savings Bank, 539 Eastern Parkway.

**Additional Items**

Crown Heights North Historic District Boundary Map  
 Crown Heights North Historic District Boundary Map with Building Addresses (11 pages)  
 Crown Heights North Historic District Map showing Photo Angles

**Historic Images:**

1. George B. and Susan Elkins House, 1375 Dean Street.
2. Dean Sage Residence, 839 St. Mark's Avenue.
3. Brooklyn Methodist Episcopal Church Home for the Aged and the Infirm, 920 Park Place.
4. The Union League Club, 19-29 Rogers Avenue.
5. New York Avenue Methodist Episcopal Church, 101 New York Avenue.
6. First Church of Christ Scientist, 100 New York Avenue.
7. New York Avenue, view north from Eastern Parkway.
8. St. Mark's Avenue, view east from New York Avenue.

Historic Images have been provided courtesy of Suzanne Spellman.

**Property Owner** (Complete this item at the request of the SHPO or FPO)

name \_\_\_\_\_


street & number \_\_\_\_\_ telephone \_\_\_\_\_

city or town \_\_\_\_\_ state \_\_\_\_\_ zip code \_\_\_\_\_

**Paperwork Reduction Act Statement:** This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.)


**Estimated Burden Statement:** public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, D.C. 20503

APPENDIX 5: Letter prepared by CHNA regarding 913 St. Marks Avenue for testimony at CB 8 Public Meeting and Landmarks Preservation Commission Public Hearing.



986 Sterling Place  
Brooklyn, NY 11213  
718•774•3834

Executive Board



**Crown Heights North Association, Inc.**  
Dedicated to Preserving the Architectural Jewels of Crown Heights North

December 3, 2014

Attention: Sandra Levine.

Reference: 863 St. Marks Avenue

The Crown Heights North Association (CHNA) is in receipt of your proposal to perform the following work at 863 St. Marks Avenue, Brooklyn New York, 11213:

Add a two-story rooftop addition and a full-height (8-story) rear addition; to remove the staircase on the front facade and relocate the building entrance to the ground floor; stucco the front facade to match the neighbors' facades and to brick the rear to blend with the neighbors rear facades.

CHNA supports the plan to refinish the front and rear facades in stucco and brick respectively. We strongly encourage extensive consultation with Landmark Preservation Commission (LPC) about the appropriate color and texture of the stucco for the front façade. Removing the front stoop is not problematic for us as it looks awkward and emphasizes the fact that the building is a contemporary addition to this historic row of houses.

However we are totally against the addition of a full height (8 story) rear addition. The proposed addition is way too big, is aggressive and intrusive in a way that will obliterate whatever light is afforded the neighbors on the south side of 863. Additionally, while other houses in this group have large extensions they only elevate three (3) stories not six (6). Lastly none of the homes on the North side have extensions.

Please feel free to contact me should you have any questions.

Yours truly,

*Deborah Young*  
Chairperson,

Cc: Community Board 8  
CHNA Board

## APPENDIX 6: PLUTO's eighty-three fields

**PLUTO FIELDS**

- 1 Borough (Borough)
- 2 Tax Block (Block)
- 3 Tax Lot (Lot)
- 4 Community District (Cd)
- 5 Census Tract (Ct2010)
- 6 Census Block (Cb2010)
- 7 School District (Schooldist)
- 8 City Council District (Council)
- 9 Zip Code (Zipcode)
- 10 Fire Company (Firecomp)
- 11 Police Precinct (Policeprct)
- 12 Health Area (Healtharea)
- 13 Address (Address)
- 14 Zoning, Zoning District 1 (Zonedist1)
- 15 Zoning, Zoning District 2 (Zonedist2)
- 16 Zoning, Zoning District 3 (Zonedist3)
- 17 Zoning, Zoning District 4 (Zonedist4)
- 18 Zoning, Commercial Overlay 1 (Overlay1)
- 19 Zoning, Commercial Overlay 2 (Overlay2)
- 20 Zoning, Special Purpose District 1 (Spdist1)
- 21 Zoning, Special Purpose District 2 (Spdist2)
- 22 Zoning, Limited Height District (Ltdheight)
- 23 Zoning, All Components 1 (Allzoning1)
- 24 Zoning, All Components 2 (Allzoning2)
- 25 Zoning, Split Boundary Indicator (Splitzone)
- 26 Building Class (Bldgclass)
- 27 Land Use Category (Landuse)
- 28 Easements, Number Of (Easements)
- 29 Ownership, Type Of Ownership Code (Ownertype)
- 30 Ownership, Owner Name (Ownername)
- 31 Lot Area (Lotarea)
- 32 Floor Area, Total Building (Bldgarea)
- 33 Floor Area, Commercial (Comarea)
- 34 Floor Area, Residential (Resarea)
- 35 Floor Area, Office (Officearea)
- 36 Floor Area, Retail (Retailarea)
- 37 Floor Area, Garage (Garagearea)
- 38 Floor Area, Storage (Strgearea)
- 39 Floor Area, Factory (Factryarea)
- 40 Floor Area, Other (Otherarea)
- 41 Floor Area, Total Building Source Code (Areasourc)
- 42 Buildings, Number Of (Numbldgs)

43 Floors, Number Of (Numfloors)  
 44 Units, Residential (Unitsres)  
 45 Units, Residential And Non-Residential (Unitstotal)  
 46 Lot Frontage (Lotfront)  
 47 Lot Depth (Lotdepth)  
 48 Building Frontage (Bldgfront)  
 49 Building Depth (Bldgdepth)  
 50 Extension Code (Ext)  
 51 Proximity Code (Proxcode)  
 52 Irregular Lot Code (Irrlotcode)  
 53 Lot Type(Lottype)  
 54 Basement Type/Grade (Bsmtcode)  
 55 Assessed Value, Land (Assessland)  
 56 Assessed Value, Total (Assesstot)  
 57 Exempt Value, Land (Exemptland)  
 58 Exempt Value, Total (Exempttot)  
 59 Year Built (Yearbuilt)  
 60 Year Built Code (Builtcode)  
 61 Year Altered 1 (Yearalter1)  
 62 Year Altered 2 (Yearalter2)  
 63 Historic District Name (Histdist)  
 64 Landmark Name (Landmark)  
 65 Built Floor Area Ratio - Far (Builtfar)  
 66 Maximum Allowable Residential Far (Residfar)  
 67 Maximum Allowable Commercial Far (Commfar)  
 68 Maximum Allowable Facility Far (Facilfar)  
 69 Boro Code (Borocode)  
 70 Borough, Tax Block & Lot (Bbl)  
 71 Condominium Number (Condono)  
 72 Census Tract 2 (Tract2010)  
 73 X Coordinate (Xcoord)  
 74 Y Coordinate(Ycoord)  
 75 Zoning Map # (Zonemap)  
 76 Zoning Map Code (Zmcode)  
 77 Sanborn Map # (Sanborn)  
 78 Tax Map # (Taxmap)  
 79 E-Designation Number (Edesignum)  
 80 Apportionment Bbl (Appbbl)  
 81 Apportionment Date (Appdate)  
 82 Pluto - Base Map Indicator (Plutomapid)  
 83 Version Number (Version)  
 84 NTA INFORMATION (added for dissertation)  
 85 HISTORIC DISTRICT INFORMATION (added)

## APPENDIX 7: FOIL request with the Department of Finance, submitted by the author

**Thank You For Filling Out This Form**

Shown below is your submission to **NYC.gov** on Thursday, September 18, 2014 at 15:36:30

This form resides at [http://www.nyc.gov/html/dof/html/contact/contact\\_emailrules.shtml](http://www.nyc.gov/html/dof/html/contact/contact_emailrules.shtml)

NAME of FIELDS	DATA
<b>ORGANIZATION OR COMPANY NAME:</b>	Cornell University
<b>NAME:</b>	Emily Goldman
<b>YOUR POSITION:</b>	PhD candidate, CityRegional Planning
<b>STREET ADDRESS 1:</b>	111 N Plain Street 2
<b>CITY:</b>	Ithaca
<b>STATE:</b>	NY
<b>COUNTRY:</b>	USA
<b>ZIP:</b>	14850
<b>TELEPHONE NUMBER:</b>	9175573931
<b>RECORDS SOUGHT:</b>	<p>Hello, I am seeking the Rolling Sales Data for the borough of Brooklyn, for years prior to 2013/2014 (which is currently available online). In an ideal world, I could get this document for each year since 2000, or earlier would be great too! The Annualized Sales data going back to 2003 is not specific enough for my research interests. The URL for this data is: <a href="http://www.nyc.gov/html/dof/html/property/rolling_sales_data.shtml">http://www.nyc.gov/html/dof/html/property/rolling_sales_data.shtml</a></p>
<b>HOW TO SEND INFO:</b>	If approved, I can pick them up at the Manhattan Business Center.
<b>RULE:</b>	Im not sure what the protocol is with D of F, but I am hoping to receive the documents in Excel spreadsheet format, but PDFs would work as well. Thank you very much for your consideration.

## APPENDIX 8: Sample outreach work of tenants' rights organizations in Central Brooklyn

### 20-Facts Every Brooklyn Tenant Should Know

3 messages

Equality For Flatbush <flatbushequality@gmail.com>

Tue, Oct 13, 2015 at 6:12 PM

To: BAN COMMUNITY LIST <the-brooklyn-anti-gentrification-community-organizing-list@googlegroups.com>, "b4g-volunteers@googlegroups.com" <b4g-volunteers@googlegroups.com>, E4F Volunteers <equality-for-flatbush-organizing-list@googlegroups.com>

### 20-Facts Every Brooklyn Tenant Should Know

Thanks to our allies at Crown Heights Assembly for complying the data: <http://crownheightsassembly.net/>

1. What is the minimum number of apartments for a building to be rent stabilized? 6 apartments
2. What date must landlords begin to provide heat? October 1st
3. When does the rent increase cycle begin and end? October 1 - September 30 each year
4. What is the current maximum rent increase in a rent stabilized unit for a 2 year lease? 2.75%
5. How many days before the expiration of a lease must the landlord give you a new lease? Between 120 and 150 days
6. If the landlord doesn't do repairs, you can call the department of Housing, HPD # 311
7. What is the name of the tenant lawsuit to win repairs? Housing Part (HP) Action
8. How frequently must a landlord fumigate (exterminate) the apartment? Every Month
9. How frequently must the landlord paint the apartment? Every 3 years
10. What is the current maximum percentage increase in a one year rent stabilized lease? 1%
11. How many hours a day must the landlord provide heat? 24 hours
12. At what temperature must the inside of the apartment be during the day? 68

12. At what temperature must the inside of the apartment be during the day? 68 degrees
13. And at night, when the temperature outside is less than 40 degrees? 65 degrees
14. Two City institutions where a tenant can make a complaint for lack of repairs.
  - a) HPD
  - b) Civil Court
15. In order to enter your apartment to do repairs, the landlord must give you how much advanced notice? 24 hours
16. What telephone number should you call to see if your apartment is regulated and to get a rental history? 658-739-6400
17. Legally, who can evict a tenant? Only by a NYC Marshal.
18. If the landlord doesn't want to return the security deposit, which court should you bring it to? Small Claims Court
19. What is the address of housing court in Brooklyn? 141 Livingston St.
20. The violations of housing code are separated by violations A, B and C. Which is the most dangerous? C violations. According to the law, how quickly must they be repaired? Within 24 hours.

#BeforeItsGone #NoEvictionZone

To get housing, legal, organizing resources or to get involved in our campaigns Contact: [flatbushequality@gmail.com](mailto:flatbushequality@gmail.com) or (646) 820-6039

BEFORE IT'S GONE // TAKE IT BACK is a Brooklyn-wide project of Equality for Flatbush (E4F) a people of color-led grassroots organization which does anti-police repression, affordable housing and anti-gentrification organizing in the Flatbush and East Flatbush communities of Brooklyn, NY

Please contact us at: [flatbushequality@gmail.com](mailto:flatbushequality@gmail.com) or call/text (646) 820-6039

PARA PARLANTES DE ESPAÑOL LLAME (513) 445-8532

Sent from my iPhone through Voice Command please excuse the typos

## Bibliography

- “720 Nostrand Empty Lot Was Drilled for Core Sample,” *The Brooklynian*, [http://www.brooklynian.com/discussion/comment/551220#Comment\\_551220](http://www.brooklynian.com/discussion/comment/551220#Comment_551220) [accessed December 3, 2015].
- “About Us,” *Crown Heights North Association*, <http://crownheightsnorth.org/about-us.html> [accessed December 13, 2015].
- Allison, Eric (2005). Gentrification And Historic Districts: Public Policy Considerations In The Designation Of Historic Districts In New York City. Ph.D. Columbia University, 2005. [http://www.allisongroup.com/ericwallison/wp-content/uploads/2012/08/EWA\\_Dissertation\\_Full.pdf](http://www.allisongroup.com/ericwallison/wp-content/uploads/2012/08/EWA_Dissertation_Full.pdf).
- Anderson, Margo J. (2010). The Census and the Federal Statistical System: Historical Perspectives. *Annals of the American Academy of Political and Social Science*, 631 (September), 152–62.
- . (2015). *The American Census: A Social History*. New Haven: Yale University Press.
- Avrami, E. (2016). Making historic preservation sustainable. *Journal of the American Planning Association*, 82(2).
- Barthel, Diane (1989a). Historic Preservation: a comparative analysis. *Sociological Forum* 4(1): 87-105.
- . (1996). *Historic Preservation: Collective memory and historical identity*. New Brunswick, N.J.: Rutgers.



- Bellafante, Ginia (2015). In Bed-Stuy Housing Market, Profit and Preservation Battle. *The New York Times*, June 19, 2015. <http://www.nytimes.com/2015/06/21/nyregion/in-bed-stuy-housing-market-profit-and-preservation-battle.html>.
- Birch, E. L. and Roby, D. (1984). The planner and the preservationist: An uneasy alliance. *Journal of the American Planning Association*, 50(2), 914-207.
- Bishop, Wade (2016). *Geographic Information Organization*. A University Consortium for Geographic Information Systems Webinar, April 6, 2016.
- “Breaking: LPC Landmarks Third Crown Heights North Historic District,” *Brownstoner*, March 24, 2015. <http://www.brownstoner.com/blog/2015/03/breaking-lpc-landmarks-third-crown-heights-north-historic-district> [accessed December 3, 2016].
- Buckley, James M. and Graves, Donna (2016). Tangible benefits from intangible resources: using social and cultural history to plan neighborhood futures. *Journal of the American Planning Association* 82 (2).
- “BYTES of the BIG APPLE™ – ARCHIVE,” *New York City Department of City Planning*, <http://www1.nyc.gov/site/planning/data-maps/open-data/bytes-archive.page> [accessed February 15, 2016]
- Campbell, Ron (2015). “Accuracy of Census Block Level Data?” June 17, 2015.
- Chernaya, Mariya (2015). Historic Preservation in New York City: Confronting the Challenges & Imagining the Future. Masters’ Thesis. University of British Columbia, 2015, <https://open.library.ubc.ca/cIRcle/collections/graduateresearch/310/items/1.0075787> [accessed December 3, 2015].

- Coleman, Gabriella (2012). *Coding Freedom: The Ethics and Aesthetics of Hacking*. Princeton, New Jersey: Princeton University Press.
- Corcoran, Cate (2013). "City Council Approves Crown Heights Rezoning," *Brownstoner*, September 25, 2013, <http://www.brownstoner.com/blog/2013/09/city-council-approves-crown-heights-rezoning> [accessed December 3, 2015]
- Coulson, N. Edward, and Robin M. Leichenko (2001). The Internal and External Impact of Historical Designation on Property Values. *Journal of Real Estate Finance and Economics* 23 (1).
- . (2004). Historic Preservation and Neighbourhood Change. *Urban Studies* 41 (8): 1587–1600. doi:10.1080/ 0042098042000227028
- "Crown Heights North, Brooklyn," *Historic Districts Council's Six to Celebrate*. March 24, 2015, <http://www.6tocelebrate.org/neighborhood-items/crown-heights-north> [accessed December 3, 2015]
- "Deserving but Not Designated: Crown Heights North," *Historic Districts Council*. 2015, <http://hdc.org/hdc-across-nyc/brooklyn/deserving-designated/crown-heights-north> [accessed December 3, 2015]
- Dubrow, Gail (1998). Feminist and multi-cultural perspectives on preservation planning. In L. Sandercock (ed.), *Making the invisible visible: A multicultural planning history* (pp. 57-77). Berkeley: University of California Press.
- Dubrow, G. and Goodman, J. B. (2003). *Restoring women's history through historic preservation*. Baltimore, MD: John Hopkins University Press.
- Erickson, E. G. (1980). *The Territorial Experience: Human Ecology as Symbolic Interaction*. Austin: University of Texas Press.

“Finance - About Us,” *New York City Department of Finance*,

<http://www1.nyc.gov/site/finance/about/about-us.page>

[accessed February 19, 2016]

Francis, Joe, Nij Tontisirin, Sutee Anantsuksomsri, Jan Vink, and Viktor Zhong (2015).

Alternative Strategies for Mapping ACS Estimates and Error of Estimation. *Emerging Techniques in Applied Demography*, 247–273. Springer.

[http://link.springer.com/chapter/10.1007/978-94-017-8990-5\\_16](http://link.springer.com/chapter/10.1007/978-94-017-8990-5_16)

Furman Center (2016). Rent Stabilization in New York City Fact Brief.

[http://furmancenter.org/files/publications/HVS\\_Rent\\_Stabilization\\_fact\\_sheet\\_FINAL.pdf](http://furmancenter.org/files/publications/HVS_Rent_Stabilization_fact_sheet_FINAL.pdf)

[accessed February 4, 2016]

Gale, Dennis E. (1991). The Impacts of Historic District Designation Planning and Policy

Implications. *Journal of the American Planning Association* 57 (3): 325–40.

doi:10.1080/01944369108975503.

Gibson, D.W. (2015). How to Dump Tenants and Make a Fortune. *The Nation*. June 11,

2015. <http://www.thenation.com/article/how-to-dump-tenants-and-make-a-fortune-2>

Gilman, Hollie R. (2015). The Future of Civic Technology. *Brookings TechTank*. April 20,

2015. <http://www.brookings.edu/blogs/techtank/posts/2015/04/20-civic-technology>

Glaeser, Edward (2015). Preservation Follies. *City Journal*. Spring 2010. [http://www.city-](http://www.city-journal.org/2010/20_2_preservation-follies.html)

[journal.org/2010/20\\_2\\_preservation-follies.html](http://www.city-journal.org/2010/20_2_preservation-follies.html) [accessed September 23, 2015]

Green, Howard (1998). The social construction of historical significance. In Tomlan,

Michael (ed.) *Preservation of What, for Whom?: A Critical Look at Historical*

*Significance*. Ithaca, N.Y.: National Council for Preservation Education

- Gregor, Alison (2014). Crown Heights, Brooklyn, Gets Its Turn. *The New York Times*, July 4, 2014. <http://www.nytimes.com/2014/07/06/realestate/crown-heights-brooklyn-gets-its-turn.html>.
- “Grep {base},” *Inside-R: A Community Site for R*, <http://www.inside-r.org/r-doc/base/sub> [accessed February 29, 2016]
- Grevstad-Nordbrock, Ted. (2015). Historic Preservation and State-Led Gentrification in Chicago, 1970-2000. Ph.D. Michigan State University, 2015.
- Hamill, Susan Pace (2005). The Story of LLCs: Combining the Best Features of a Flawed Business Tax Structure. *Business Tax Stories: An In-Depth Look at Ten Leading Developments in Corporate and Partnership Taxation*.  
[https://www.law.ua.edu/misc/hamill/Chapter 10--Business Tax Stories \(Foundation\).pdf](https://www.law.ua.edu/misc/hamill/Chapter%2010--Business%20Tax%20Stories%20(Foundation).pdf).
- Hawkins, Sandra (2011). “CHNA (Pronounced China) Preserves History in Crown Heights,” *Examiner.com*. June 15, 2011, <http://www.examiner.com/article/chna-pronounced-china-preserves-history-crown-heights> [accessed November 9, 2015].
- Hayden, Dolores (1995). *The Power of Place: Urban Landscapes as Public History*. Cambridge, MA: MIT Press
- Henrick, Chris (2015). *Am I Rent Stabilized?* <https://amirentstabilized.com> [accessed February 5, 2016]
- Hopper, Susan (Interviewer). (2010). “Deborah Young & Suzanne Spellman: Crown Heights North Historic District; Crown Heights North Association,” *Historic Districts Council*, September 28, 2010, <http://hdc.org/hdc-across-nyc/interview-deborah-young-suzanne-spellencrown-heights-north> [accessed December 3, 2015]

- Hosmer, Charles B. (1965). *The Presence of the Past: A history of the preservation movement in the United States before Williamsburg*. N.Y.: G.O. Putnam and Sons.
- Howard, Alex (2015). Civic tech in 2015: \$6.4 billion to connect citizens to services, and to one another. *Tech Republic*. February 6, 2015.  
<http://www.techrepublic.com/article/civic-tech-in-2015-6-9-billion-to-connect-citizens-to-services-and-to-one-another/>
- Howell, Ryan (2008). Throw the bums out? A discussion of the effects of historic preservation statutes on low-income households through the process of urban gentrification in older neighborhoods. *Journal of Gender, Race, and Justice* 11(3): 541-571.
- Jarvis, Jon (2014). “Telling all of America’s story: the national park service announces LGBT theme study,” *The White House*, May 3, 2014.  
<https://www.whitehouse.gov/blog/2014/05/30/telling-all-america-s-story-national-park-service-announces-lgbt-theme-study>
- Juravich, Nick (2013). *I Love Franklin Avenue*. ilovefranklinave.blogspot.com
- Kasinitz, Philip (1988). The Gentrification of ‘Boerum Hill’: Neighborhood Change and Conflicts over Definitions. *Qualitative Sociology* 11 (3): 163–82  
doi:10.1007/BF00988953.
- (1992). *Caribbean New York: Black Immigrants and the Politics of Race*. Ithaca: Cornell University Press.
- Kaufman, Ned (2009). *Place, Race, and Story: Essays on the Past and Future of Historic Preservation*. New York: Routledge.

- King, Thomas (1985). "If an Orange Falls in the Forest, Is It Eligible? A Comment on Tainter and Lucas." *American Antiquity* 50 (1): 170–72. doi:10.2307/280646.
- . 2005. *Places That Count: Traditional Cultural Properties in Cultural Resource Management*. Walnut Creek, CA: AltaMira Press.
- Krauss, John (2015). "Whither Rent Regulation," *Accursed Ware*. <http://blog.johnkrauss.com> [accessed February 4, 2016]
- Landmarks Preservation Commission (2007). Crown Heights North historic Districts Designation Report, April 24, 2007.  
[http://www.nyc.gov/html/lpc/downloads/pdf/reports/CHN\\_report.pdf](http://www.nyc.gov/html/lpc/downloads/pdf/reports/CHN_report.pdf)
- Laska, Shirley B., and Daphne Spain, eds. (1980). *Back to the City: Issues in Neighborhood Renovation*. New York: Pergamon Press.
- Lees, Loretta (2003). Super-Gentrification: The Case of Brooklyn Heights, New York City. *Urban Studies* 40 (12): 2487–2509. doi:10.1080/0042098032000136174.
- Leone, Mark P., and Parker B. Potter (1992). Legitimation and the Classification of Archaeological Sites. *American Antiquity* 57 (1): 137–45. doi:10.2307/2694840.
- Marshall, Paule (1981). *Brown Girl, Brownstones*. Old Westbury, N.Y.: Feminist Press
- Meeks, Stephanie (2014). "Widening the preservation lens," *Saving places*. October 30, 2014. <https://savingplaces.org/stories/widening-preservation-lens>
- Minner, Jennifer (2016). Revealing synergies, tensions, and silences between preservation and planning. *Journal of the American Planning Association*, 82(2): 72-87.
- McCabe, Brian J., and Ingrid Gould Ellen (2016). Does Preservation Accelerate Neighborhood Change? Examining the Impact of Historic Preservation in New York

City. *Journal of the American Planning Association* 82 (2): 134–46.

doi:10.1080/01944363.2015.1126195.

McNulty, Robert H., and Stephen A. Kliment, eds. (1976). *Neighborhood Conservation: A Handbook of Methods and Techniques*. New York: Whitney Library of Design.

Merrill, Than. (2016). “A Beginner’s Guide To Forming A Real Estate LLC: Part 1,” *Fortune Builders*. March 16, 2016. <http://www.fortunebuilders.com/beginners-guide-forming-real-estate-llc-part-1> [accessed April 10, 2016]

Miller, H. J. and Goodchild, M. F. (2015). Data-driven Geography. *GeoJournal*. August 2015, *Volume 80, Issue 4*, pp 449-461. doi10.1007/s10708-014-9602-6

Navarro, Mireya (2014). ‘Poor Door’ in a New York Tower Opens a Fight Over Affordable Housing. *The New York Times*, August 26, 2014.

[http://www.nytimes.com/2014/08/27/nyregion/separate-entryways-for-new-york-condo-buyers-and-renters-create-an-affordable-housing-dilemma.html?\\_r=1](http://www.nytimes.com/2014/08/27/nyregion/separate-entryways-for-new-york-condo-buyers-and-renters-create-an-affordable-housing-dilemma.html?_r=1)

National Park Service (2016). “National Historic Preservation Act of 1966, as amended through 1992.” <https://www.nps.gov/history/local-law/nhpa1966.htm>

O’Loughlin, John, and Douglas C. Munki (1979). Housing Rehabilitation in the Inner City: A Comparison of Two Neighborhoods in New Orleans. *Economic Geography* 55 (1) doi:10.2307/142732.

Palen, J. John, and Bruce L. (1984). *Gentrification, Displacement, and Neighborhood Revitalization*. SUNY Series in Urban Public Policy. Albany: State University of New York Press.

“PLUTO Data Dictionary,” *New York City Department of City Planning*, June 2015 (15v1).

[http://www1.nyc.gov/assets/planning/download/pdf/data-maps/open-data/pluto\\_datadictionary.pdf](http://www1.nyc.gov/assets/planning/download/pdf/data-maps/open-data/pluto_datadictionary.pdf)

Prendergast, Daniel (2014). “Developers Struggling to Fill Cheap Luxury Brooklyn

Apartments,” *New York Post*. August 5, 2014. <http://nypost.com/2014/08/05/developers-struggle-to-find-affordable-housing-tenants> [accessed February 29, 2016]

Reynolds, James (1995). Get Real: Using LLCs to Invest in Property. *Business Law Today Vol. 4 (No. 4 Limited liability companies)*: 44–48.

Ribstein, Larry E. (2003). LLCs: Is the Future Here? A history and prognosis. *Business Law Today*, 10–13.

Romalewski, Steve (2013a). A Modest Proposal for NYC Tax Parcel Data. *Spatiality*. April 4, 2013. <http://spatialityblog.com/2013/04/04/a-modest-proposal-for-nyc-tax-parcel-data>

———. (2013b). A Modest Victory Regarding NYC Tax Parcel Data. *Spatiality*. April 4, 2013. <http://spatialityblog.com/2013/04/04/a-modest-victory-regarding-nyc-tax-parcel-data>

———. (2013c). NYC’s MapPLUTO Is Free! *Spatiality*. July 25, 2013. <http://spatialityblog.com/2013/07/25/nycs-mappluto-is-free/>.

———. (2013d). When It Rains It Pours: NYC GIS Data Floodgates Opened. *Spatiality*. December 6, 2013. <http://spatialityblog.com/2013/12/06/when-it-rains-it-pours-nyc-gis-data-floodgates-opened>

Ryberg-Webster, S., and K. L. Kinahan. (2014). Historic Preservation and Urban

Revitalization in the Twenty-First Century. *Journal of Planning Literature* 29 (2): 119–39. doi:10.1177/0885412213510524.



- Sahuguet, Arnaud, John Krauss, Luis Palacios, and David Sangokoya. (2014). Open Civic Data: Of the People, by the People, for the People. *Bull. Tech. Comm. Data Eng* 37 (4): 15–26.
- Schmickle, William E. (2007). *The Politics of Historic Districts a Primer for Grassroots Preservation*. Lanham, MD: AltaMira Press.
- Schuler, Jill R., Kent, Robert B. and Monroe, Charles B. (1992). Neighborhood Gentrification: A Discriminant Analysis of a Historic District in Cleveland, Ohio. *Urban Geography* 13 (1): 49–67. doi:10.2747/0272-3638.13.1.49.
- Smith, Rachel H. (2015). “Crown Heights Community Board Backs Land Use Changes for Manufacturing Zone,” *DNAinfo New York*. April 13, 2015, <http://www.dnainfo.com/new-york/20150410/crown-heights/crown-heights-community-board-backs-land-use-changes-for-manufacturing-zone> [accessed December 3, 2015]
- Smith, Rachel H. (2015). “More Than 600 Homes Added to Crown Heights Historic District,” *DNAinfo New York*. March 24, 2015. <http://www.dnainfo.com/new-york/20150324/crown-heights/more-than-600-homes-added-crown-heights-historic-district>.
- Sorkin, Michael (2016). Another City. *The Nation*. <http://www.thenation.com/article/another-city> [accessed January 29, 2016]
- Stipe, Robert E., and Lee, Antoinette J., eds. (1988). *The American Mosaic: Preserving a Nation’s Heritage*. Washington, D.C: U.S. Committee, International Council on Monuments and Sites.
- Story, Louise, and Stephanie Saul (2015). Stream of Foreign Wealth Flows to Elite New York Real Estate. *The New York Times*, February 7, 2015.

<http://www.nytimes.com/2015/02/08/nyregion/stream-of-foreign-wealth-flows-to-time-warner-condos.html>.

“Tabula: Extract Tables from PDFs.” 2013. June 16. <http://tabula.technology/>.

Tainter, Joseph A., and G. John Lucas. (1983). Epistemology of the Significance Concept. *American Antiquity* 48 (4): 707. doi:10.2307/279772.

“Tax Credit Programs,” *NYS Parks, Recreation & Historic Preservation*, 2015.

<http://nysparks.com/shpo/tax-credit-programs>

Tepper, Steven (2015). Policy and Historic Preservation: A Preliminary Research Agenda.

<http://www.princeton.edu/~artspol/occaspap/Tepper-Research and Preservation.pdf>.

Tomlan, Michael A., ed. (1998). *Preservation of What, for Whom?: A Critical Look at Historical Significance*. Ithaca, N.Y.: National Council for Preservation Education.

Tomlan, Michael A. (2015). *Historic Preservation: Caring for Our Expanding Legacy*. Cham, Switzerland; Springer

Travis, Richard (1973). Place Utility and Social Change in Inner-City Historic Space: A Case Study of German Village, Columbus, Ohio. Ph.D., University of Illinois at Urbana-Champaign, 1973.

United States Government (2009), “Transparency and Open Government,” *The White House*, 2009. Web. [accessed Feb. 29, 2016]

United States Government (2009), “Open Government Initiative,” *The White House*. 2009. Web. [accessed Feb. 29, 2016]

United States Government (2014). *U.S. Open Data Action Plan*.

[https://www.whitehouse.gov/sites/default/files/microsites/ostp/us\\_open\\_data\\_action\\_plan.pdf](https://www.whitehouse.gov/sites/default/files/microsites/ostp/us_open_data_action_plan.pdf) [accessed June 30, 2016]

Wall, Patrick (2011). Jewels in Crown Heights, *Wall Street Journal*, June 28, 2011.

<http://www.wsj.com/articles/SB10001424052702303936704576398331208832442>

Warerkar, Tanay and Goldstein, Sasha. (2013). “Large Swath of Western Crown Heights Rezoned to Keep Residential Feel,” *New York Daily News*, September 27, 2013.

<http://www.nydailynews.com/new-york/brooklyn/large-swath-western-crown-heights-rezoned-residential-feel-article-1.1470044> [accessed April 12, 2016].

Wells, Jeremy C. (2014). Social Science Research Methodologies and Historic Preservation: Broadening the Possibilities for a Preservation Thesis. In Stiefel, Barry L. and Wells, Jeremy C., eds. (2014) *Preservation Education: Sharing Best Practices and Finding Common Ground*. University Press of New England.

[https://www.academia.edu/14177784/Social\\_Science\\_Research\\_Methodologies\\_and\\_Historic\\_Preservation\\_Broadening\\_the\\_Possibilities\\_for\\_a\\_Preservation\\_Thesis](https://www.academia.edu/14177784/Social_Science_Research_Methodologies_and_Historic_Preservation_Broadening_the_Possibilities_for_a_Preservation_Thesis)

Wells, Jeremy (2010). Historical Significance through the Lens of Contemporary Social, Cultural, and Experiential Values. [http://heritagestudies.org/Wells - Contemporary Values in HP.pdf](http://heritagestudies.org/Wells_-_Contemporary_Values_in_HP.pdf) [accessed November 9, 2011].

Wilson, Michael (2007). Seeking Landmark Status, and Hoping to Lose a Label of Unrest. *The New York Times*, April 24, 2007.

<http://www.nytimes.com/2007/04/24/nyregion/24journal.html>